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IMPLEMENTATION OF THE CONVENTION

(a) REVIEW OF REPORTS ON IMPLEMENTATION OF AFFECTED COUNTRY PARTIES OF REGIONS OTHER THAN AFRICA, INCLUDING ON THE PARTICIPATORY PROCESS, AND ON EXPERIENCE GAINED AND RESULTS ACHIEVED IN THE PREPARATION AND IMPLEMENTATION OF NATIONAL ACTION PROGRAMMES

(b) REVIEW OF THE REPORT ON PROGRESS MADE IN THE FORMULATION AND IMPLEMENTATION OF SUBREGIONAL AND REGIONAL ACTION PROGRAMMES IN REGIONS OTHER THAN AFRICA

Addendum

COMPILATION OF SUMMARIES OF REPORTS SUBMITTED BY ASIAN COUNTRY PARTIES[2]

Note by the secretariat

1. By its decision 4/COP.3, the Conference of the Parties (COP) decided to undertake, at its fourth session, the review of reports on the implementation of affected country Parties of regions other than Africa, including reports on the participatory process and on experiences gained and results achieved in the preparation and implementation of national action programmes.

2. Pursuant to decision 11/COP.1, the secretariat was requested to compile the summaries of reports submitted by affected country Parties and submit the compilation to the Conference of the Parties for consideration and for any action the COP may wish to take. Decision 11/COP.1 also provided procedures and formats for reporting to the COP and required, in particular, a summary of the national reports, not to exceed six pages.

3. The present document contains the summaries of national reports submitted by nine country Parties from the Asian Region. These are: Sri Lanka, Syrian Arab Republic, Tajikistan, Turkmenistan, Tuvalu, United Arab Emirates, Uzbekistan, Viet Nam and Yemen. The secretariat will also make this compilation of summaries available on its Web site (www.unccd.int) for wider circulation.

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[1] ICCD/COP(4)/1.

[2] Reproduced without formal editing.

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SRI LANKA

No part of Sri Lanka falls within the range of ratios specified in the Convention. However, within the Dry Zone, which is conventionally defined as the area receiving less than 1900 mm of rainfall annually, where the ratio of annual rainfall to potential evaporation falls within the range 0.05 to 0.65 during a major part of the year due in part to the very low rainfall received and in part to the low water holding capacity of the soils. Considering the monthly variations in evapotranspiration, frequent droughts experienced, anticipated climatic changes and the accelerated land degradation that is taking place due to human activities, it is likely that desertification may emerge as a problem in the Dry Zone in the near future.

Land degradation, however, is not confined to the Dry Zone. It is a severe problem in the Wet Zone as well, especially in the mid-country where steep slopes, high intensity rainfall and inappropriate land uses have led to high rates of soil erosion, landslides, etc. Land degradation therefore has to be treated as a problem that is widespread, occurring in all of the agro-climatic zones at varying intensities.

Land Degradation - Nature and Magnitude of the Problem in Sri Lanka

The demands of a rapidly expanding population has set up pressures on the island's natural resources and these in turn have resulted in a high level of environmental degradation. The more important manifestations are heavy soil losses, high sediment yields, soil fertility decline and reduction in crop yields, marginalization of agricultural land, salinization, land slides and deforestation and forest degradation.

(a) Heavy Soil Losses

It has been estimated that nearly one third of the land in Sri Lanka is subjected to soil erosion, the erodible proportion ranging from less than 10.0 per cent in some districts to over 50.0 per cent in others. The most vulnerable districts are those in which a high proportion of land is given over to either tea, annual crops or chena or shifting cultivation.

(b) High Sediment Yields

A part of the soil that is removed is transported by rivers and streams leading to sedimentation of reservoirs, downstream floods, etc., commonly referred to as the off-site effects of soil erosion. Some recent studies done within the Upper Mahaweli catchment have shown high rates of sediment yield in some rivers such as the Maha Oya and the Uma Oya.

(c) Soil Fertility Decline and Reduction in Crop Yields

A major reason for the decline in yields of plantation crops and food crops over the past several decades has been the loss of valuable top soil due to erosion. Agriculture on sloping lands in many areas is generally maintained by the artificial replacement of nutrients removed by erosion. Available evidence suggests that vegetable growers in the upcountry use large amounts of fertilizer to make up for the increasing poverty of the soil.

(d) Salinization and Water Logging

Records of the actual extent of land affected by salinity or data that indicate recent trends are not available, but sporadic studies seem to indicate the development of salt affected soils in lowland areas in the Dry Zone. Salinization of low-lying farm lands in coastal areas due to salt water intrusion is also a problem. Although water-logging is not considered a serious

problem; nevertheless, some lands in the coastal districts of the Wet Zone have been withdrawn from agriculture due to excess water.

(e) Marginalization of Agricultural Land

A sizeable extent of agricultural land in different parts of the country has become marginal or uneconomic. Apparently, a substantial portion of the remaining unutilized state lands is also marginal in nature. A significant proportion of the tea lands in the country are also considered to be marginal or uneconomic.

(f) Landslides

A reconnaissance survey carried out in landslide-prone areas has indicated that approximately 12,500 square miles are vulnerable to landslides. The available evidence seems to indicate that the country has been experiencing a spate of landslides over extensive areas in the central and south-western parts of the country since the early 1980s.

(g) Deforestation and Forest Degradation

The natural forest cover in the country which stood at 80.0 per cent until the turn of the century, had dwindled to less than 24.0 per cent by 1992. The deforestation has taken place both legally and illegally. Forests have been cleared legally for agriculture and settlement schemes and other development projects; they have been cleared illegally for shifting cultivation and for agriculture and settlement by encroachers. The quality of the forests in the country has also been declining due mainly to shifting cultivation, illicit felling of trees and encroachments.

Droughts

All parts of the country are subject to droughts. The problem of drought is particularly severe in the Dry Zone where the failure of rains in the main cultivation season, September to March, can spell disaster to thousands of families depending on rainfed agriculture for their livelihood. It has also been indicated that the probability of the occurrence of drought in both Maha and Yala is greater in the Dry Zone than in the Wet Zone.

National Policies, Strategies and Plans Prepared to Address Land Degradation Issues

The Government's growing concern about environmental issues, in general, and land degradation, in particular, over the past two decades or so is reflected in the different policy initiatives that have been taken, the strategies that have been formulated and the plans that have been prepared. The policies spelled out the Government's intentions regarding the management of natural resources including forests and water, the strategies establishing the priorities for the management of these resources, and the plans identifying the main management issues in each sector and providing a comprehensive long-term development framework for the different sectors.

Current Institutional Framework for Addressing Land Degradation Issues

The task of protecting and sustainably managing the environment is shared by the number of state institutions. The state sector institutions include a number of ministries and their line departments and agencies at the national level; and the Provincial Ministries of Environment, Lands and Agriculture at the sub-national level.

1. National Level Institutions

There are nine ministries directly involved in addressing issues pertaining to land degradation. They are the Ministry of Forestry and Environment, the Ministry of Agriculture and Lands, the Ministry of Mahaweli Development, the Ministry of Irrigation and Power, the Ministry of Plantation Industries, the Ministry of Urban Development and Housing, the Ministry of Public Administration and Home Affairs, the Ministry of Plan Implementation and Parliamentary Affairs, the Ministry of Education and Higher Education. The ministries and their relevant line departments and agencies are given in Table-1.

Guidance in sustainably managing resources coming under the jurisdiction of a ministry in provided by the ministry in the form of policy formulation and plan preparation. These policies and plans are translated into action by the relevant line departments and agencies.

Institutional Mechanisms for Integrating Environment and Development

It has been estimated that approximately 80 per cent of the land in the country is under the control of the State. Although a number of government ministries, line departments and statutory bodies are responsible for the management of this land, none have the overall authority over land-use decisions. The existence of such a large number of agencies sharing responsibility over various aspects of land resource management has not only lead to an overlapping of authority, but also to contradictory decisions and policies. The need to devise a suitable mechanism to ensure sufficiently strong linkages between them has been met by the Ministry of Forestry and Environment by creating two new institutions at the National level:

(a) Committees on Environment Policy and Management (CEPOMs) and

(b) Committee on Integrating Environment and Development (CIEDP).

2. Sub-National Level Institutions

(a) Provincial level

The responsibility for protecting and managing the environment at the sub-national level is in the hands of Provincial Councils. This responsibility stems from the Thirteenth Amendment to the Constitution of the Government of Sri Lanka passed in 1978. Under the Amendment, land administrative functions were devolved to the provincial and divisional levels. The Thirteenth Amendment also passed over to the Provincial Council the responsibility for "protecting the environment within the province.

(b) District level

The National Environmental Act empowers the Central Environmental Authority to appoint a District Environmental Agency for each administrative district consisting of such members as the Authority may determine. The functions of the committee include the assembling of relevant information on the environment and natural resources, coordinating environment related activities, identifying environmental problems and adopting measures to address such problems, planning and implementing programmes to increase environmental awareness, and performing any functions or duties delegated by the Central Environmental Authority.

(c) Divisional level

Each Divisional Secretary's Division has a Divisional Environment Committee chaired either by the Divisional Secretary or the chairman of the Pradeshiya Sabha. The functions of the committee include the collection of information on the environment, identifying environmental problems and finding solutions and assessing the environmental impact of development activities.

(d) Pradeshiya Sabhas

The Pradeshiya Shabhas Act empowers the Pradeshiya Sabha to appoint an Environment Committee comprising members of the Sabha and other persons from within the Pradeshiya Sabha area.

Legislation Enacted to Address Land Degradation Issues

Serious concern about land degradation in general and soil erosion in particular has been expressed for quite some time.

1. Land Resources

Two strategies have been adopted by the Government to address the problem of soil erosion. One is to incorporate environmental safeguards in legislative enactments pertaining to land and water resources development. The other is to introduce legislation specifically designed to prevent or mitigate soil erosion.

(a) Environmental Safeguards

Environmental safeguards have been incorporated in several pieces of legislation introduced since the 1930s. These include provisions to map out state lands for the prevention of soil erosion to ensure that owners of state lands as well as private lands adopt proper conservation measures, and punish persons who do not comply, to provide financial assistance; to promote water sheds management and the protection of critical water sheds, to prevent encroachment and clearing of forest and wild life reserves, and to encourage long-term research and technology for effective soil conservation.

(b) Prevention or Mitigation of Soil Erosion

A soil conservation Act was passed in 1951 to make provision for the conservation of soil resources, for prevention or mitigation of soil erosion and for the protection of land against damage by floods and droughts. It was subsequently realized that the provisions laid out in the Act were inadequate to meet present day demands and therefore the Act was amended in 1996.

International Assistance Received for Addressing Land Degradation Issues

The Government has been able to mobilize and utilize a substantial volume of foreign assistance for the conservation and management of natural resources. The assistance has come in the form of loans, grants and technical assistance. Between 1990 and 1999 approximately 33 projects have commenced with foreign assistance to promote the conservation and management of natural resources. Of the 33 projects, nearly half have focused on the management of water and forest resources. Assistance for the management of these two resources is being continued, but in recent years there has been a widening of interests on the part of donors to cover other concerns such as bio-diversity conservation and coast conservation. Of the sixteen projects for which assistance has been provided since 1995, four focus on bio-diversity conservation and coast conservation.

There has also been a recognition of the need to address other critical issues such as the promotion of environmental activities at the grass-roots level, the protection of critical watersheds, and the development of appropriate institutional arrangements to integrate natural resource management into development programmes.

Participation of Local Authorities, Non-Governmental Organizations (NGOs), Private Business and Academic Institutions in addressing Land Degradation Issues

Local Authorities, non-governmental organizations, private business and academic institutions have participated in the efforts being made by the Government to combat land degradation and promote the sustainable management of land and water resources. Local government authorities and private businesses have contributed directly by endeavouring to control land degradation within their respective areas of jurisdiction - the former in the non-plantation areas - and the latter in plantation areas. The NGOs and the academic institutions on the other hand have contributed indirectly - the former by raising environmental awareness amongst land users - and the latter by meeting the demand for trained personnel in the field of environmental management.

1. Local Authorities

There are three main local authorities in Sri Lanka - Municipal Councils, Urban Councils (for Urban areas) and Pradeshiya Sabhas. The Pradeshiya Sabhas are empowered to play a wide role relating to the conservation and improvement of the environment in their areas of authority, both under functions entrusted under Pradeshiya Sabha's Act and the functions entrusted by the Central Environmental Authority.

2. Non-Governmental Organizations

There are a large number of NGOs whose goal is the protection of the environment. Their main objective has been to raise environmental awareness among farmers and their children.

3. Private Businesses

Private sector involvement in addressing land degradation has been limited to a few companies engaged in agricultural production. Appropriate cultural practices and mechanical and biological soil conservation practices are being adopted by the companies on cultivated lands to minimize degradation and maximize production.

4. Universities

The universities are actively supporting government initiatives to address environmental issues by training personnel in environmental management, supported by both foreign funding and local funding. Several programmes on environmental subjects have been established and are now being implemented.

Recent Projects Implemented to Combat Land Degradation

A number of projects to promote the sustainable management of land resources have been implemented within the last one and a half decades with donor assistance from both multilateral and bilateral agencies. Some of these projects have been completed and others are being implemented. The major objectives have included reforestation and stabilization of denuded water sheds, management of natural resources in the Mahaweli catchments, protection of other critical water sheds, the mapping of land slide prone areas, the promotion of land-use planning and economically viable and ecologically sustainable farming systems, and institutional strengthening and policy formulation.

Experiences in Combating Land Degradation

All the projects implemented have had a common goal, i.e., to combat land degradation and improve the management of the land and water resources in the country. The activities undertaken by these projects however have varied. A wealth of experience has been gained through the implementation of these different activities. Some of the "lessons" learned are outlined below:

- Sub-watersheds and micro-catchments are better planning units because they are geographically defined and represent the "natural stage" on which the interaction of land, water and biotic resources take place;

- Land users can be motivated to take an active part in managing land and water resources by making them aware of the benefits of conservation and by developing simple and user-friendly interventions;

- Efforts made to involve land users in the management of land resources have not been entirely successful due to a number of reasons. Since participation has not been an unqualified success, an alternative approach is being tried out in which poverty and land degradation are treated as complementary issues;

- Institutional weaknesses, such as the unclear definition of institutional responsibilities and weak implementation capacity, have constrained the efforts to promote the sustainable management of land and water resources;

- The absence of a land-use policy has made it difficult to implement required land-use changes in areas vulnerable to land degradation.

- Some national policies have also hampered efforts to combat land degradation. Protection of some crops from imports has led to an extension of the area given over to erosive crops, while subsidies on fertilizer have encouraged farmers to use more fertilizer on degrading lands rather than adopt soil conservation measures.

SYRIAN ARAB REPUBLIC

Desertification is a major constraint for development in the Syrian Arab Republic, particularly in most of the Syrian Badia Rangelands (Steppe Zone) and the margin zone which is located between the Badia zone and the agricultural lands. Both zones, which originally had fragile ecosystems, are suffering from mismanagement and misuse of natural resources, in addition to severe disorders of the ecological system, since the end of the 1950s. Besides that, many factors are still playing a major role in deterioration of the environment overall both zones such as drought which has affected the area for many years. It is not surprising that policies and development plans are recently more concerned about the issues of environment health, perfect and rational use of resources, sustainability and ensuring the welfare of future generations.

The latest development plan of the Syrian Arab Republic concentrated on the necessity and importance of the protection of the environment. It concentrated on the conservation and rehabilitation of deteriorated natural resources, with the guarantee and adoption of sustainable development principles of all natural resources (especially the unrevived ones) and promoted the collaboration and participation of local national communities in preparing and implementing the NAP, based on the participatory approach.

Through activities of the Ministry of State for Env. Affairs, especially during the last five years, the MSEA has prepared and developed several strategies and national action programmes related to Agenda 21 such as:

- National building capacity funded by the World Bank;
- Protecting of Ozone layer funded by UNEP;
- National study on Biodiversity;
- National Strategy on Biodiversity.

One of the most important recommendations of the National Environmental Strategy was the preparation of the National Action Programme to Combat Desertification in Syria in order to guarantee the integration between development and environment at the national level.

Before 1995, national efforts concentrated on some projects and programmes funded through the Syrian Government or through technical and financial assistance/cooperation with international/Arabian organizations. These projects aimed at stopping land degradation and promoting rational use of natural resources, by implementing projects.

In 1995, the Syrian Government, in close collaboration with the Arab Organization for Agricultural Development (AOAD), has prepared a National Action Programme (NAP) to Combat Desertification. The Programme advocated the following:

- The rational use and conservation of natural resources;
- Taking all possible measures to integrate the population/target groups in designing and implementing their development programmes and in decision-making;
- Empowering population/target groups to plan and steer actions to improve their living conditions while sustaining their national resource heritage;
- Adopting an integrated and holistic approach to achieve economic development and alleviate poverty;

Most recently, the Government, in collaboration with the United Nations Development Programme (UNDP) has initiated a project on National Action Programme for Combating Desertification in Syria. This project will build on the existing NAP (of 1995) to formulate an integrated programme that contributes to the existing efforts in order to achieve the set goals and targets, and to meet Government commitments. The new NAP will streamline other environment strategies and programmes, enhance the integration of existing projects, ensure coordinated action, and enhance coordination.

The new National Action Programme to Combat Desertification in Syria is expected to be enhanced and integrated into other environmental/developmental strategies and programmes and to provide adequate coordination between all stakeholders, and clarification of all activities which might be implemented at the regional/subregional level.

Local communities, especially women, are expected to draw benefits from this NAP through training and awareness programmes. It will increase knowledge and environmental education about desertification and its causes and impacts on natural resources, food production, national economy and the population that lives inside or outside the affected areas. Participatory approach is expected to provide the suitable means to encourage all efforts and coordinate them in order to streamline the knowledge and experience of all concerned national stakeholders, NGOs, and regional research centres to cooperate and assist in formulating NAPs meant to protect the environment, combat desertification and reduce the impact of drought.

The Ministry of State for Environmental Affairs (MSEA) has been designated the National Focal Point for implementing the NAP to combat desertification. Within the MSEA is the Department of Soil and Land Conservation, which is the National Coordination Body (NCB) for all matters regarding UNCCD. The head of this department is also the national focal point, as well as the national Coordinator of the NAP to combat desertification which is funded by UNDP.

Two committees have been established to implement the NAP, including all stakeholders, NGOs, representatives of UNDP, international organizations such as ACSAD, ICARDA, AOAD and research centers.

The NCB financial resources are derived from the MSEA common budget, but a sizeable support comes from the UNDP assisted project and the Syrian Government. The National five-Year Development Plan allocates funds to projects and programmes with integrated components that relate to combating desertification.

At present NCB has no database, but plans and current efforts are directed to establish this facility. Some governmental institutions, regional organizations (ACSAD, AOAD and ICARDA) and research centres, which are members of the SC and the NTC, have databases. NCB can collaborate with and draw information from these databases to make an assessment and analysis to prepare and formulate a programme of priorities.

The project management has facilities such as: telephone, fax and e-mail; other audio/video equipment and a four-wheel drive vehicle.

Currently, awareness raising and encouragement of local populations to participate in resource conservation and checking of land degradation is done mainly within the context of environmental education campaigns.

Governmental institutions, NGOs and projects are active in this respect. MSE has an Information and Environmental Awareness Committee, which can also coordinate efforts to inform and educate the public about UNCCD and relevant actions.

Collaboration with the international community in stopping land degradation and combating desertification commenced early through projects on rangeland rehabilitation, afforestation, land management, irrigation and water resources management through assistance from France, Germany, Italy, FAO, UNDP, UNEP and others. However, the Government has not yet determined specific mechanisms to ensure funding for projects and programmes that will be formulated within the NAP under preparation.

The Syrian Government has so far not defined a suitable mechanism to get financial support for projects and programmes derived from implementing the National Action Programme to Combat Desertification in Syria.

Together with the efforts to formulate practical indicators to monitor implementation of the UNCCD, use should be made of the methodology developed by GORS, and other national institutions such as ACSAD and ICARDA.

TAJIKISTAN

After accession to the United Nations Convention to Combat Desertification (CCD) and its ratification, Tajikistan for the first time presents the National report on implementation of the Convention and on the work implemented regarding the problems of combating desertification according to the requirements of the CCD secretariat.

The process of preparation of the National report was going through several stages. At the first stage, the invitations for participation in the

interdepartmental meeting for discussion the struggle against desertification were sent to all interested ministries and departments, scientific institutes and public organizations. At the meeting, the representatives of the Government, Majlisi Oli (Parliament), the Ministry of Nature Protection, the Ministry of Agriculture, the Ministry of Melioration and Water Management, the Ministry of Health, the Committee on Land Resources, the Tajik Forestry Association, the Academy of Sciences, the Tajik Academy of Agricultural Sciences and the Public Secretariat on the implementation of CCD have taken part. As a result of the discussion, the participants of the meeting have defined the basic aspects of the preparation of the National report.

At the second stage of preparation of the report, the experts prepared the technical terms of reference with the detailed descriptions and sequence of implementation of works. Then each expert according to its terms of reference has prepared the appropriate part of the National report. All remarks and proposals submitted by the experts were considered for final preparation of the report by the scientific adviser.

At the third stage of preparation of the National report, on 16 March, the second meeting of the experts was organized with participation of specialists for the approval of the final version of the National report, taking into account the remarks and proposals of the Almaty meeting for the countries of Central Asia and Eastern Europe on preparation of the National report which was held on 23-24February 2000. It is necessary to note that the National report and its resume were initially written in Tajik and then translated into Russian and English.

The experts have noted the necessity of conducting similar meetings for the approval of decisions on the implementation and dissemination of ideas and requirements of CCD among wide layers of the population by means of the implementation of the National Action Program (NAP) in Tajikistan.

1. Strategy and priorities established within the framework of the plans and/or of policy of sustainable development

Tajikistan is rich in mineral resources; at the same time its economic situation is being influenced by the following factors: irregular location of settlements, cities and industrial sites; mountains; the under-development of a transport network; the prevalence of agrarian and raw material branches; etc. These factors do not contribute to the well-being of people and a rational use of natural resources. During the last years, shortage of food products and fuel forced population to cultivate steep mountain slopes and to cut down mountain forests. As a result, intensity of the development of desertification in many areas of the Republic has intensified. It also demonstrates a low stability of natural mountain environment to various natural and anthropogenous influences.

The Republic of Tajikistan, understanding the importance of provisions of the basic documents of CCD, despite complexities in its own economy, has joined the Convention on 12 August 1997. Consequently, the country's prime task is the development of a NAP to combat desertification, definition of a long-term strategy and practical measures on implementation of the local and nation-wide programmes. Preparation and implementation of the NAP is supported by all layers of population.

At present, the problem of desertification in the Republic remains very urgent and the Government of the Republic of Tajikistan pays great attention to nature protection issues.

2. Institutional, legislative and organizational measures

In the Soviet period several ministries, departments and scientific establishments dealing with agriculture, water management, health, industry, power, forestry, trade, construction, geology, etc., were involved in the management and implementation of a nature protection policy and the strategy of action.

In conditions of diverse influence on an environment and absence of a uniform supervising body, the pressure on the environment at the end of the 1980s has increased by several times. Activities of many institutions have induced the state to establish a coordinating and supervising body. As a result, in 1988 the Ministry of Nature Protection was established whose structure includes regional and district committees on nature protection.

The scientific researches in the field of protection of the environment is being carried out by several research, design and survey organizations, such as: the Academy of Sciences, the Academy of Agricultural Sciences, the Ministry of Nature Protection, the Forestry and Industrial Association, the Ministry of Water Management, the Ministry of Health, Department of Geology, etc. Now almost all basic ministries, departments, scientific establishments and public organizations implement plans and programmes related to the environment. In such a situation the most urgent problem becomes a question of coordination, which depends on all interested organizations and departments.

By decree of the President of the Republic of Tajikistan of 28 December 1998, No. 1144, the United Nations Convention to Combat Desertification was ratified, and the Ministry of Nature Protection was nominated as the National Coordination Body (NCB) on implementation of CCD. A coordinating body consists of representatives of interested ministries, scientific institutes, NGOs and other public organizations, including women's.

At a national seminar on implementation of the UNCCD, with the purposes of coordination of various bodies for preparation of the NAP, the Coordinator was appointed, who had experience of work in the field of rational use of natural resources. The Temporary Creative Group (TCG) was also established, comprising representatives of the Government, scientific, design, and public organizations.

3. Participation in support of the process of implementation of the programme of actions

After joining the CCD, awareness raising campaigns for the public were launched. In 1998 the national seminar was carried out which was the first step on the way of NAP preparation. The participants at this seminar came to a conclusion on the necessity of convening a series of regional conferences. The recommendations and conclusions of a seminar and regional conferences have formed the basis for NAP preparation. At the beginning the NCB has developed a strategy of information activity, taking into account the basic features of various layers of the population. Thanks to this strategy, the Public Secretariat on implementation of CCD for the representatives of NGOs was established.

To define a circle of the participants of NAP, the NCB, in cooperation with institutions, engaged in issues of desertification, and the Public Secretariat has organized four regional workshops. During these workshops, a number of issues and problems were defined which should have been taken into account at the First National Forum in preparation of the NAP. In April 1999 the First National Forum was held, at which the structure of the NAP was accepted.

Leading experts and scientists from scientific and industrial organizations and non-governmental organizations, both youth and women's, were involved in the preparation of reports for regional meetings and the First National Forum. The task of the regional meetings consisted in organizing effective consultations for regional and district organizations and local communities with a view to influence the decision-making process at various levels.

Apart from it, the Public Secretariat, with support from UNDP/UNSO, has carried out a number of republican conferences for women's, youth and other public organizations to provide information on the Convention to Combat Desertification. It has issued a series of leaflets and brochures about the value of CCD and on the causes of desertification and methods of struggle with dynamic processes.

Now in Tajikistan the first variant of the NAP is prepared. For approval of the programme, in the first half of the current year the Second National Forum will be organized.

4. The consultative process in support of the preparation and implementation of the National Action Programme and the partnership agreement with developed countries, Parties and other interested entities

Taking into account the seriousness of land degradation in Tajikistan, processes of desertification are of paramount importance for the Government of the Republic of Tajikistan. Consequently, now it is necessary to establish close relations with various international organizations and developed countries, with a view to conclude partnership agreements and to continue close contacts with other appropriate entities.

However, degree of support and activity of international organizations and developed countries in preparation of the NAP in the context of CCD in Tajikistan remains very low. Probably it is explained by some political developments in the country after the events of 1992 and economic instability. Therefore, implementation of the programmes of the NAP to combat desertification according to CCD should be supported, approved and carried out by the various parties.

Despite numerous problems of various character, which complicate the preparation and implementation of the NAP, the Coordinator of this programme and the Ministry of Nature Protection of the Republic of Tajikistan make efforts to attract the donors. Proposals on financing the NAP were circulated. The representatives of numerous international organizations, and a number of diplomatic agencies accredited in Tajikistan, were invited to take part in the First National Forum. But only a few international organizations participated in the National Forum and took an active part in the preparation of the NAP. One of them is UNDP, which takes an active part at all stages of process of NAP preparation.

The UNDP Office in Tajikistan coordinates the activity of donors. With the support of UNDP, a number of meetings on problems of desertification were organized with participation of all layers of the population and various regional, local and international organizations. All of the above-mentioned measures gave a push for development of the NAP. It should be underlined that it became possible due to the funds received from the Government of Finland through UNDP/UNSO and the secretariat of CCD. During preparatory work on development of the NAP, the constant advisory support was provided by the CCD secretariat, UNDP/UNSO, and also by neighbouring countries, which had the necessary experience.

In addition, financial and technical assistance in preparation of the NAP was provided by the Government of the country.

Taking into account previous experiences in combating desertification, effectiveness of anti-erosion and anti-deflation measures will depend mainly on active participation of the local population. The role of NGOs in the conditions of Tajikistan is very low, as the majority of them have no experience in combating desertification and until recently had no complete idea about desertification. The majority of NGOs were organized after Tajikistan became independent and their members were far from the problems of desertification.

However, after Tajikistan's accession to the Convention, the majority of non-governmental organizations of various types, such as women's, youth, professional, etc., began to participate actively in tackling various problems of desertification. In order to use more rationally public potential, the Public Secretariat, on realization of provisions of the UNCCD, united more than 30 ecological NGOs which started actively participating in implementation of ideas of the CCD.

Moreover, in preparation of the NAP, the experience of the local population was taken into account, which was revealed at the regional working meetings carried out throughout the country with the purpose of finding out the opinion of the population on the various issues of desertification.

5. **The measures taken or planned within the framework of the National Action Programme, including measures to improve the economic environment, to conserve natural resources, to improve institutional organization, to improve knowledge of desertification and to monitor and assess the effects of drought**

The active combat against various types of desertification in Tajikistan began in 30-40 years of the 20th century, when development of salted, swamped and deflated lands has been started. In 50-60th the State gave a special attention to the problems of desertification. During this period numerous research, planning and prospecting, building organizations were established with the purpose to study land-water resources of the Republic, to develop additional lands, to research various aspects of desertification. The work on combating water and wind erosion had begun.

But in the 1990s, in connection with the disintegration of the Soviet Union, instability in the Republic in 1992-1993 and economic recession, the work on combating desertification was almost stopped. In many regions the process of desertification has increased and became of a catastrophic character.

Therefore, it is necessary to include within the framework of implementation of the NAP, the following measures on the preservation and improvement of natural resources, and also on dissemination of knowledge about desertification:

- Creation of an information system on the problems of desertification;
- Organization of monitoring;
- Definition of the area, spreading, types, degree and rating of various categories of desertification;
- Drawing up a series of maps on desertification;

- Raising a role of the local population, NGOs, including women's organizations, through organizing practical seminars, round tables with the purpose of combining efforts for joint actions directed at combating desertification;

- Organization of stationary methods of desertification monitoring;

- Remote methods of desertification analysis;

- Zoning the territory of Tajikistan according to a degree of land degradation. It is necessary to establish creative collectives, with the purpose of improvement of a technique of drawing up zoning with the obligatory indication of complexes of anti-erosion and deflation measures of struggle;

- Development of recommendations and proposals on rational land tenure;

- Measures on rational nature use (soil cover, flora and fauna, forest resources, water resources, especially protected territories, energy);

- Improvement of anti-erosion and anti-deflation methods of struggle (forest melioration, agro-technical, hydraulic engineering);

- Development of methods of socio-economic mechanisms of combating desertification;

- Raising a role of international cooperation in the struggle against desertification;

- Improvement of nature protecting normative acts, etc.

The information received during the definition of priority directions of the NAP, assessment of the needs of NGOs, alongside with experience accumulated in the process of combating desertification, demonstrate numerous lacks in management and ability of mobilization of possibilities of NGOs, especially women's and various other NGOs unifying different layers of the population. To eliminate the above-mentioned lacks and to insure effective work with various layers of population, during the second stage of the implementation of the NAP special attention will be given to activating the work of NGOs, especially women's and youth. Especially since the Convention promotes such partnership, it is high time to strengthen work among the local population, suffered most of all from desertification.

6. Financial allocations from the national budget in support of implementation, as well as financial assistance and technical cooperation received and needed identifying and prioritizing requirements

During many years, the Government, while planning allocations for nature protection activities, paid special attention to combating land degradation. The activities on combating desertification were carried out basically by state. The Government allocated financial resources from the national budget, and at the international level, the activities on mobilization of financial resources were not carried out, as the NAP was not yet developed. During the first stage of NAP preparation, financing was carried out within the framework of joint efforts of the Government, UNDP/UNSO, the secretariat of UNCCD and country-donors (Finland, Switzerland).

With the purpose of the implementation of the approved programme on improvement melioration of irrigated lands in 1998-2003, the Government of the Republic will allocate the funds of 12 billion rubles (75 million US dollars).

The major factor for the improvement of the situation would be financial support from donors, both from the international organizations and developed countries, which should allow to put in action the planned Fund for combating desertification. It is necessary to note that the participants of the First National Forum supported the creation of the Fund for combating desertification in Tajikistan.

7. A review of the benchmarks and indicators utilized to measure progress and an assessment thereof

Preparation of an analysis of various types of desertification in Tajikistan was started in the 1930s and many results of research development, in particular, on the struggle against the salinization of land, have come in the world literature. However, at the present stage neither sectoral, nor academic institutions and organizations engaged in the collection and processing of information on an environment, and especially on desertification, can fully carry out its role. These organizations possess vast information on desertification, but it is not standardized. Each organization carried out the research by various methods taking into account its own aims. The available limited resources and personnel are divided between various services; use of their potential in many respects is limited. That's why there is a need for the creation of temporary creative groups.

Taking into account all the above-mentioned factors, it is proposed to establish a system of an exchange of the ecological information, thanks to which it would be possible to implement effectively the National Action Programme.

At present for the implementation of the provisions of the Convention in Tajikistan the first steps were made: popular /scientific articles, brochures, booklets, leaflet about the United Nations Convention to Combat Desertification are issued, and the NAP is being prepared.

Though the process of implementation of CCD in Tajikistan is being carried out with some delay, nevertheless, measures on combating land degradation, in particular, the struggle against water erosion, deflation and soil salinization, were being taken rather actively, and it seems that this work in the near future will rise to a new stage and by common efforts we would overcome numerous difficulties related to the "evil of the 21st century".

TURKMENISTAN

Turkmenistan, a new State on the political map of the world, proclaimed its independence on 27 October 1991. Turkmenistan is situated in the western part of Central Asia between latitude 38°08' and 42°48' north and longitude 52°27' and 66°41 east. The occupied area is 491,200 square km. Its population is 5.2 million.

The territory of Turkmenistan fully lies in the zone of Central Asian deserts and its nature conditions are characterized by extreme climate. Its northern territory is a part of the Aral Sea ecological disaster. In this connection, the country is actually under the pressure of desertification processes and this situation imprints on the whole economy and social sphere of Turkmenistan. Therefore, Turkmenistan pays great attention to the protection of environment for the purpose of preservation of health and the prosperity of people.

Due to the vast territory and the small number of the population, processes of desertification do not constitute a serious menace. Nevertheless, nature fragility and its extreme sensitiveness to man's activity set the territory of Turkmenistan into the zone of great environmental risk.

Taking into consideration the need for studying and working out techniques for complex development of dry lands, in 1961 an Institute of Deserts was established in the system of the Academy of Sciences of Turkmenistan. Its tasks included not only research work but coordination of working out the techniques on a scale of the USSR. Beginning from 1967 up to the present moment, an international scientific journal "Problems of Desert Development" has been published at the Institute of Deserts. From 1980, an English version of the journal has been published in the USA. Consequently, Turkmenistan has already obtained considerable and scientific experience before 1977 when a "World Plan to Combat Desertification" was passed at the international conference in Nairobi. Therefore, Turkmenistan joined the implementation of the Plan as an active member. From 1979 till 1991, International Scientific Training Courses functioned in Turkmenistan for improvement of knowledge in the sphere of desertification control for representatives of developing countries of Asia, Africa and Latin America. During 12 years (before the collapse of the USSR) 600 specialists from 62 countries had studied at the courses.

In 1995 Turkmenistan signed the United Nations Convention to Combat Desertification, and in 1966 the Parliament of the country ratified it. In the same year a Governmental Commission for preparing the National Programme to Combat Desertification in Turkmenistan was established. On the whole, appropriate ministerial structures, departments, scientific institutions, institutes, NGOs and rural communes were involved in the successful implementation of the Convention on the national level.

1. Strategy and priorities determined within the plans of sustainable development

Analysis of the land structure in Turkmenistan shows that 90 per cent of the territory is characterized by desert landscape, which serves as round-year pastures for sheep and camels. About 2 mln ha fall to the share of irrigated lands concentrated in oasis. Pasture farming in the country is one of the most profitable and least labor-intensive industries of the economy. However, pastures on the significant territory were deserted and have low fodder capacity. So, out of 39.5 mln ha of pastures, 69 per cent are degraded, 37 per cent are not flooded and 5 per cent have been transformed into bare moving sands. If now about 10 mln heads of cattle are being pastured, the appropriate phyto-ameliorative measures probably will allow to 2-3 times increase their productivity and bring up a cattle head up to 20 mln heads.

One of the key issues of sustainable development is the problem of water supply and irrigation. 100-150 mm of precipitation falls in Turkmenistan during a year mainly as rain, and evaporation more than 20 times exceeds precipitation. Hence, Turkmenistan suffers a great deficit of fresh water. Rivers have unstable run-off and do not meet the country's requirement in water. Therefore, search for additional resources of water supply for the growing economy and the population of the country is of great urgency.

Almost the whole plain territory of Turkmenistan belongs to sandy deserts formed by ancient deposits of the river run-offs, which are exposed to deflation. Dune sands formed during this process are of big harm to different valuable establishments. Railways and highways, irrigated land, canals, reservoirs, populated areas, pipelines, etc., suffer from sand drifts and deflation. Control of sand deflation and erosion give the possibility to preserve productivity of hundreds of thousand of hectares of land and run trouble free the important engineering constructions and people's life support establishments.

In regions of irrigated farming, a great disaster is the land salinization, an important factor of desertification. Currently 30 per cent of irrigated land is at the stage of high salinization, and 50 per cent of moderate salinization. Only 20 per cent of land are in more or less favorable ameliorative state. As a result of land salinization, agricultural crops capacity drops by 50 per cent and sometimes even lower. That means that a complex of measures should be performed in this direction including construction of a ramified drainage network.

The ecological situation in the Aral Sea basin has a negative impact on the sustainable social-economic development of the country. In this region the Dashoguz velayat of Turkmenistan is situated, in which the population suffers from drinking and irrigation water of poor quality, with which the development of different diseases is connected. The country pays a great attention to this region, provides a large financial and technical support. In 1998 the National Programme of Environment Protection in Turkmenistan was developed on the Governmental level in cooperation with the UNDP, in which measures for desertification control were defined, and now it is at the stage of implementation. Issues of desertification control are reflected in plans of the Ecological Fund of Turkmenistan, Nature Protection Society, NGO "Catena", Turkmen Geographical Society, etc.

In 1996 the State Fund for Nature Protection of Turkmenistan was established, which, within the limits of its possibilities, provides financial assistance to organizations for their nature protective activities. All these strategic trends and priorities are clearly determined in the Programme of the President of Turkmenistan - "Strategy of Social-Economic Reforms in Turkmenistan for the period up to the year 2010".

The main state executive body in the sphere of environment protection is the Ministry of Nature Protection of Turkmenistan.

2. Institutional, organizational and legislative measures for implementation of the National Action Programme to Combat Desertification

Protection and rational management of nature is one of the fundamental principles of the state policy of Turkmenistan. The Law "On Nature Protection", passed in 1991, underlies activities of all industries and aims at ensuring the priority of environmental interests of the society with regard to a scientifically grounded combination of social-economic and environmental problems. The Law stipulates actions of the State in extreme environmental situations, control in the sphere of nature protection, responsibility for violation of the nature protective legislation.

Laws "On state of especially protected territories" (1992), "On flora protection and rational management" (1993), "On fauna protection and rational management" (1997) were also passed.

The Law "On hydrocarbon resources" (1996) is aimed at ensuring rational and efficient management of oil and gas resources. On 6 June 1997, a Competent Body for Exploration of Hydrocarbon Resources at the President of Turkmenistan was established, which is a body of the State Government conferred with exclusive powers.

In 1996 the Law of Turkmenistan "On protection of atmospheric air" was passed, and in 1993 – a Forest Code of Turkmenistan aimed at creation of conditions for rational management of forests, their reproduction and protection.

The Law of Turkmenistan "On state ecological expertise", being passed in 1995, is aimed at ensuring environmental protection from disturbances.

There are a number of legal acts regulating nature protective activities: "On development of horticulture and planting of greenery in Turkmenistan" (1992), "On creation of park zone in the Kopetdag piedmont" (1998).

The Ministry of Nature Protection of Turkmenistan is entrusted with control and intersectorial management in the sphere of nature protection and rational usage of nature resources.

Turkmenistan has joined, and its Parliament ratified, a number of international Conventions on environmental protection: UNCCD, "On Biological Diversity", "Basle Convention of Transborder Transportation of Dangerous Waste Products", "Framework Convention on Climate Change", "Vienna Convention and Montreal Protocol on Ozone Layer Protection". For the purpose of the efficient meeting of Turkmenistan's commitments on the implementation of provisions of Conventions and United Nations programmes on environment protection, in March 1999 a State Commission was established with seven working groups.

In April 1999, Heads of State of Central Asia at the sitting of the International Fund of the Aral Sea arrived at a decision on accelerating stabilization of the ecological situation in the Aral Sea basin.

In the framework of the Caspian Environmental Programme (CEP), in May 1998 a Regional Thematic Center to Combat Desertification was established in Turkmenistan (Ashkhabad).

Among especially protected territories there are reserves, sanctuaries, national, historic-nature and memorial parks, nature monuments, botanic and zoological gardens, arboreta, natural territories for health improvement.

Protected territories do not yet cover all the main landscapes of Turkmenistan, but they concentrate the largest species diversity of flora and fauna of the State.

Protected territories represent the most unique landscapes of the country, where the monitoring of environment is executed.

3. Process of participation of State, non-governmental organizations and rural communes in the implementation of the National Action Programme to Combat Desertification

The National Action Programme to Combat Desertification in Turkmenistan was developed in 1996 with the support of UNEP and ESCATO and discussed at the National Conference. It was published in the journal "Problems of Desert Development" (# 1, 2000). In late 1996 it was approved by the State Commission on working out the National Action Programme to Combat Desertification and submitted to the Government of Turkmenistan for consideration, then submitted to the UNDP, the World Bank, the secretariat of CCD, UNEP, ESCATO and embassies of the USA, Germany, the UK, China and Iran.

In March 1999 a State Commission on ensuring the implementation of commitments of Turkmenistan, arising from the Convention and the United Nations programmes on the environment was established. The National Action Programme to Combat Desertification is tightly connected with the Presidential programmes "10 Year of Stability", "New village", "On planting greenery and horticulture". A project for creation of a shelterbelt around Ashkhabad, 140 km in length, was prepared and submitted to the Khyakimlik (Municipality) for its implementation. In October 1998 more than 2.5 mln trees were planted. Stabilization and afforestation of sands along highways of the Balkan and Akhal velayats is being performed.

An application was submitted to the World Bank for USD 219,000 credit for mini plant producing drinking water purifying devices.

Within the framework of the National Action Programme to Combat Desertification, two projects on problems of natural resources management in the central Karakum are being implemented with the support of the German Agency for Technical Cooperation (GTZ) and with the participation of the local population.

For decentralization of decisions on sustainable development of villages, the position of a head of the daikhans' association and elected position of archyn were united in Turkmenistan. He is at the same time a head of Gengeshi, which consists of population-elected aksakals (elders) and women – active and respected people – for solving all problems of village development.

In order to activate the local population for participation in planning of primary project tasks and optimum ways of their solving, the investigations, PRA surveys, workshops and competitions were held. Non-governmental organizations (NGOs) have been established in villages for different target groups with regard to gender policy. This work is done within the framework of the Memorandum of Understanding between the Government of Turkmenistan and the UNDP/UNSO. For the period 1999-2000, USD 50,000 have been allocated by sponsors to support the National Action Programme to Combat Desertification implementation. On 2-5 March 1999 an international seminar "Implementation of Convention to Combat Desertification and Convention on Biodiversity: a new approach" was held for solving regional desertification problems.

On 17 June 2000, a Conference is scheduled, devoted to the World Day to Combat Desertification, as well as the National forum before COP 4 starts.

Foreign partners mean to further provide organizational, technical and financial support for the National Action Programme to Combat Desertification implementation in Turkmenistan. In particular, under the initiative of the Secretariat of UNCU and under the financial assistance of the German Agency for Technical Cooperation (GTZ), in early 2000 a seminar was held, in which an issue was raised about the necessity of working out the most priority regional projects for the Central Asian region (CAR).

On 18-21 July 2000, a meeting of CAR representatives will be held in Bishkek. In its work the highest officials, national coordinators and representatives of non-governmental organizations will take part. The German Agency for Technical Cooperation (GTZ) could commit itself to be an intermediary between governments of the CAR countries and international financial institutions.

4. Consultation process to support the National Action Programme to Combat Desertification implementation

Having joined almost all conventions and agreements in the sphere of nature protection, Turkmenistan actively supports the deepening of international cooperation for implementation of the National Action Programme to Combat Desertification and obtaining effective practical results. Its participation in this cooperation on a bilateral or multilateral basis is founded on principles and conceptions resulting from national tasks.

Economic, scientific and cultural agreements of Turkmenistan with Germany, India, China, Russia and other countries stipulate the usage of the positive nature protection experience, joint issuing of books, posters, and information sheets in the sphere of desertification control.

In the implementation of the National Action Programme to Combat Desertification, Turkmenistan closely collaborates with GTZ, the UNCCD secretariat, UNDP/UNSO, with the Tacis on desertification problem within the

Caspian Environmental Programme, and with the World Bank on water supply and health protection. With the financial support of the German Government, the Publishing House "Springer" has published, in English, a book "Problems of arid lands and desertification control in Central Asia" of 18 printer's sheets. In accordance with the agreement between the Institute of Deserts of Turkmenistan and Research Institute of Arid Land of India, a book "The Karakum Desert and the Tar Desert" was published in English and Russian. The National Institute of Deserts is planning to prepare an Atlas of Desertification of Asia with participation of scientists of China, Mongolia, Iran, India, Kazakhstan and Uzbekistan.

During consultations and the implementation of an agreement on partnership in the sphere of desertification control, a new national approach in the preparation and planning of actions is used. It is a "bottom-up" approach. This means that people from rural communes have a full right to participate in the implementation of the programmes connected with the nature protection and sustainable development. Favorable relations developed between Turkmenistan and international organizations such as UNEP, ESCATO, the World Bank, USAID, UNICEF, etc. Due to financial assistance of the UNEP, in 1996 a book of Professor A. Babaev, "Problems of Arid Land Development" of 21 printer's sheets was published in English. Publishing House "Alerton-Press" in New-York regularly publishes an international scientific journal "Problems of Desert Development", six issues per year.

5. Measures planned or undertaken within the framework of the National Action Programme to Combat Desertification in Turkmenistan

To analyze the past experience in the sphere of desertification control, in 1994-1999 several books were prepared and published as follows: "International cooperation in desertification problem solving" (1994) in Russian and Turkmen, "Problems of arid land reclamation - National aspects" (1995-1996) in Russian and English, "Problems of deserts and desertification control in Central Asia" (1999) in English. In cooperation with GTZ, a project "Activation of the local population participation in desertification control and in sustainable development of a farm", is being implemented beginning from 1998 in the cattle-breeding farm "Erbent" situated in the Central Karakum. At the National Institute of Deserts, a Consulting Center to Combat Desertification was established which was equipped with modern computers, telecommunication facilities and software for operation of the Geographic Information Systems (GIS). Beginning from the year 2000, such work is being executed in the Sakarchaga etrap of the Mary velayat, in mountain settlements Nokhur of the Bakharden etrap of the Akhal velayat and in the Tagta etrap of the Dashoguz velayat.

The project UNDP/UNSO "Implementation of the National Action Programme to Combat Desertification in Turkmenistan" is at its final stage. UNDP project "Development of potential of countries of the Aral Sea basin" is being implemented.

For the purpose of intensifying a role of the local population in the implementation of projects and programmes in the sphere of nature protection, including the National Action Programme to Combat Desertification, seminars were organized in several farms of the Sakarchaga, Gyaurs, Bakharden and Tagta etraps, with the participation of labor veterans (aksakals), teachers, doctors, shepherds and farmers, women, schoolchildren, and representatives of the local authority.

In 1999 a Joint-stock Society "Gyok Gushak" (Green Belt) was established, which started a wide front of work for planting greenery and afforestation around all cities and populated areas. A six-row shelterbelt around Ashkhabad of conifers, deciduous trees, and fruit trees has been already planted. In general, during two years more than 6 mln trees have been planted in the country, which are carefully cared for. Nearly all ministries and departments, industrial and

agricultural associations, research institutions, students, pupils, citizens and countrymen take part in this activity. All expenditures for forest plantations are covered by the State. Forest planting is performed along linear objects – irrigating canals and highways. In early 2000 new railways and motor highways of 550 km of length, which will cross the Karakum Desert, have been built. The National Institute of Deserts, Flora and Fauna is entrusted with the scientific-methodological provision of ameliorative work.

The state commission has been established for the control of planting greenery work.

6. Budget allocations to support the National Action Programme to Combat Desertification in Turkmenistan

Turkmenistan, as a young State, continues suffering from the difficulties of the transition period. Therefore, the Government, for the time being, is not able to allocate the necessary budget means for the implementation of the nature protective measures, including desertification control. Nevertheless, a definite amount is envisaged in the national budget for implementation of the primary, extremely necessary, nature protective measures. In addition, the list of financial sources includes some ministries and departments (the Ministry of Agriculture and Water Management, the Ministry of Energy and Industry, the Ministry of Nature Protection, banks, companies, and khyakimliks) and foreign companies' investments in Turkmenistan.

An important role in nature protection has been played by a Decree of the President of Turkmenistan of 1993 on free natural gas, electricity and fresh water for the population. By the present time, almost 90 per cent of cities and populated areas are supplied with gas and 70 per cent are provided with water pipelines. All these measures allowed to sharply decrease the anthropogenic pressure on environment and to improve the ecological situation in the country.

Under bilateral and multilateral agreements signed between Turkmenistan and foreign partners, their executors are entrusted with nature protective measures that are also important for financial allocations (partners from the USA, Italy, Turkey, Iran, Israel, Germany, Japan and China).

In connection with the fact that the nature of the arid zone, even in natural conditions, is on the verge of degradation, larger budget allocations are necessary for successful implementation of the National Action Programme to Combat Desertification in Turkmenistan, mainly for purchasing technical equipment.

7. Criteria and indices used for analyzing and estimating results of implementation of the National Action Programme to Combat Desertification in Turkmenistan

Monitoring studies in Turkmenistan have a long history and started in 1912 when the Repetek sand-desert station was established. Later on the monitoring of environment was regularly performed in all eight reserves located in different landscapes of the country. Monitoring data allow scientists and specialists to determine the beginning and duration of desertification processes, to estimate their space-time dynamics and prove predicted conclusions on further development of environmental components. In the monitoring of desertification processes, in addition to the ground images, images obtained from artificial satellites "Meteor-Priroda" are widely used. These satellites are equipped with the facilities for survey in visible, infrared and microwave range of the spectrum.

For the analysis and estimation of results of the implementation of the National Action Programme to Combat Desertification in Turkmenistan, a database was created at the National Institute of Deserts, Flora and Fauna, which is an

informational-reference system. It contains a combination of information and computer programs, accumulated during a long time and necessary for scientific analysis, planning and implementation of the nature protective measures and for rational management of natural resources. The database uninterruptedly provides executors with necessary information or materials for environmental expertise and preparation of proposals for officials and for solving of forecast or management tasks.

The database on desert problems and desertification control contains information as follows: on topographic maps, on subject maps, on aerial and space images, on desertification processes analysis and estimation, on criteria and indices of current state and tendencies in desertification development, on world experience in desertification control, on international and partner cooperation and on bibliography.

The specialists of the National Institute of Deserts, Flora and Fauna have worked out techniques of monitoring and instructions for plotting maps of desertification, which were discussed and approved in appropriate departments of the UNEP, ESCATO and FAO.

On the basis of accumulated basis data, a chart of the current state of desertification on the territory of Turkmenistan on the scale 1:1,000,000 was prepared.

TUVALU

Tuvalu is a small atoll nation populated by around 11,000 Polynesians, located in the Central Pacific north of Fiji. The country is characterized by high dispersion, with a total of just 26 km^2 of land area distributed among nine islands over a sea area of 1.3 million km^2.

Tuvalu's location, small size and remoteness makes it a nation extremely vulnerable to climatic events and human impacts. In recent years, the country has seen the emergence of problems with drought and habitat damage. Although the overall climate is tropical-marine with a mean annual rainfall of 3000 mm at the capital of Funafuti, other islands in the group are experiencing periods of drought, particularly in the north. Problems with drought occur not only because of a lack of rain, but also because of the nature of the coral rubble and sand soils, the complete lack of surface water storage (no rivers, dams or lakes) and the very limited reserves of largely brackish groundwater.

In order to help it address these issues, the Government of Tuvalu signed the CCD in 1998. Although, to date, some reactive measures have been taken (such as the acquisition of a desalinator), very little strategic and pre-emptory action has been taken on issues of habitat degradation or drought, largely due to a lack of expertise and understanding. The country now wishes to begin addressing these problems through the international mechanisms of the CCD.

UNITED ARAB EMIRATES

Introduction:

Taking into consideration that the United Arab Emirates (UAE) are located within the arid west continent desert belt, the environment (as that of many of the arid and semi-arid environments in the world) is highly sensitive. The sensitivity is attributed to the delicate balance between various natural systems arid components such as climate, water resources, soil, vegetation, and biodiversity. Accordingly, its exposure to the impacts of aridity and desertification is considered as a recurring phenomenon.

The UAE, since its establishment, had not spared efforts to conserve its environment, develop natural resources on a sustainable basis, and combat desertification. The UAE considered this as one of its development pillars and thus was able to accomplish great achievements in various fields related to environment and desertification. These achievements would not have been possible without the wise policies that His Highness Sheikh Zayed Bin Nahyan developed when dealing with environmental issues. His Highness Sheikh Zayed Bin Sultan Al Nahyan, the President of the UAE, highlighted this interest in his message to the Earth Summit in 1992, as well as in the UAE country report to the UNCCD Conference of the Parties in 1997.

The establishment of the Federal Environmental Agency (FEA) in 1993 reconfirmed the UAE interest in the environment and constituted a major step towards consolidating the role of the federal government in addressing environmental concerns within the country. This included the preparation of the National Environmental Strategy and the National Environmental Action Plan and the National Action Plan to Combat Desertification (Draft). The objectives, scope and contents undertaken by the FEA are summarized below:

I. The Nations' Strategy and the National Plans for the Environment and Combating Desertification

Part One: Priorities For Environmental Action (National Agenda 21)

The National Environmental Strategy and the National Environmental Action Plan of the UAE were developed in the context of the National Policies for Conservation, sustainable development of natural resources, combating desertification and fulfilling the commitments of Agenda 21. UNDP and UNESCWA cooperated with the FEA to develop the National Environmental Strategy and the Environmental Action Plan.

The first report, completed in December 1998, represents an integration of the sectoral reports prepared by ten sectoral work groups that addressed environmental aspects and development in the UAE. The report is divided into six chapters as follows:

UAE, geographical characteristics;

Elements of sustainable development;

Elements for planning an Environmental National Strategy and National Environmental Action Plan;

Major environmental issues in the UAE;

Environmental capacity-building in the UAE;

Priorities for environmental actions in UAE.

Part Two: The Development of the National Environmental Strategy

The National Environmental Strategy, which was completed in December 1999, includes strategies that were developed by the 10 sectoral groups representing various environmental and developmental aspects in the UAE. These sectoral strategies are based on priorities identified by the sectoral groups in the first report, which are:

- Availability of fresh water resources;
- Combating pollution (water, air, waste);

- Conserving the marine environment;
- Conserving the urban environment;
- Conserving terrestrial resources, and biodiversity.

Sectoral strategies are synthesized into a National Environmental Strategy reflecting objectives and policies and comprising seven chapters:

Chapter 1: Introduction: environmental characteristics and environmental strains in the UAE;

Chapter 2: National Environmental Strategy for Water Resources;

Chapter 3: National Environmental Strategy for reducing air and water pollution problems;

Chapter 4: National Environmental Strategy for Problems of marine environment;

Chapter 5: National Environmental Strategy for Problems of urban environment;

Chapter 6: National Environmental Strategy for land resources degradation and biodiversity;

Chapter 7: National Environmental Strategy for capacities and awareness.

It is obvious that all the strategies described above are related to desertification in one way or another, but more specifically in Chapter 6.

Part Three: The Draft National Action Plan to Combat Desertification in the UAE

The UAE, in cooperation with UNEP/ROWA and ESCWA, prepared a draft National Action Plan to combat desertification. The plan was completed by the end of 1995, and has not been yet implemented, hoping to integrate it with the National Environmental Strategy and the Environmental Action Plan which are to be completed. Integration of the three programmes will ensure addressing environmental issues in a balanced and comprehensive manner.

The plan comprises the following elements:

Chapter (1): Listing of the natural resources and their potentials;

Chapter (2): The socio-economic set up;

Chapter (3): Past and present efforts in combating desertification;

Chapter (4): Includes the "National Action Plan for Combating Desertification". Eight programmes were identified in the strategy:

a. Monitoring and assessment;

b. Water resource management;

c. Public awareness and participation;

d. Rational agriculture;

e. Security against drought;

f. Promoting scientific and technological capabilities;

g. Promoting national capacity building programmes;

h. Consolidating federal, regional and international cooperation.

Chapter (5): Capacity-building;

Chapter (6): Identification of priority short-term (5 years) programmes during 1994-1999 which amount to about 27 projects.

II. The National agency responsible for implementing the agreement

The UAE has assigned FEA through ministerial Decree No. 41452 in 1997 to follow up the implementation of the UNCCD at the federal, subregional and international levels. The UAE acceded to the UNCCD in 21 October 1999 and became a member in 19 January 1999. Work is ongoing to institutionalize a National Committee, formed by representatives of around 20 ministries and other national and private organizations concerned with desertification. This National Committee will follow-up the implementation of the Convention and prepare a national strategy and action plan to combat desertification in accordance with the National Environmental Strategy and the Asia Annex of the Convention.

III. The Legal and Legislative Framework for Protection of the Environment

In absence of a Federal Environmental Act, the UAE issued Law No. 24 concerning Environmental Protection and Development in 1999. It includes nine chapters concerned with protection and conservation of renewable natural resources such as water, soil, and natural reservation. It has 101 articles addressing the following objectives:

1. Protection of the environment and conservation of its quality and natural balance;

2. Combating pollution in all forms, and avoiding any damage or long-term impacts as a result of any economic, agricultural, industrial urban development programmes intended to raise the standard of living and promoting cooperation between the Federal Environmental Agency and other governmental organizations concerned with the protection, and conservation of the environment and to consolidate environmental awareness and pollution combating principles;

3. Development of natural resources and a sustainable biodiversity in the UAE through utilization in the most efficient and sustainable manner for the benefit of the present and future generations;

4. Protection of human health, other living creatures from impacts related to activities and actions that are damaging to the environment;

5. Protection of the environment of the UAE from impacts of activities carried out beyond the borders of the UAE;

6. Implementing provisions in approved international and regional agreements related to environmental protection, combating pollution and conservation of natural resources.

IV. Institutional Framework to conserve the environment

The organizational structure suggested for the FEA comprises several directorates made of sections among which is the agricultural activity and combating desertification section. Similar units are also operating at the state level, reflecting the interest of the country in conserving the natural resources

and combating desertification. In order to provide adequate coverage, the Government actually pursues capacity-building through local training programmes and external scholarships for obtaining higher degrees in areas relevant to combating desertification.

V. Integration of Combating Desertification programmes into the National Environmental Strategy

At the implementation level, the UAE's interest in combating desertification is highlighted in the first and second parts of the National Environmental Strategy. In addition, the chapter that is related to agriculture and land resources includes objectives, policies and measures that are needed to conserve land resources and to combat desertification. The activities of the National Environment Strategy are developed to include activities related to combating desertification and reducing the impact of aridity. Once the National Action Plan to combat desertification is completed and approved, it will be integrated into the National Development Plan.

VI. Subregional, regional and international cooperation in combating desertification

The UAE has participated in subregional and regional meetings, e.g.: the Subregional Action Plan meetings for West Asia, as well as the Asian regional meetings. The regional and subregional programmes have emphasized the need to harmonize their programmes with the goals of National Action Plans that include monitoring and assessment of desertification, early warning for drought and desertification, water resource management, capacity-building, developing rangelands and forests, and fixation of sand dunes, etc.

At the national level, a survey of the coastal area of the UAE was conducted using field surveys. The UAE is also participating with the GCC countries in preparing a draft project to survey and evaluate rangelands and forests in these countries. The UAE is also actively participating in the Steering Committee to Combat Desertification of CAMRE. The committee, in cooperation with subregional and regional organizations, was able to implement several projects in the framework of the programme for Combating Desertification and Mitigation of Drought effects. The committee will also link national programmes with subregional and regional programmes to benefit from the available capabilities and expertise.

VII. Activities relevant to Combating Desertification that have been implemented

The main activities relevant to combating desertification and conservation of natural resources include:

- Developing laws and regulations relevant to conservation and sustainable management of the environment and renewable natural resources;
- Preparation of the National Atlas that includes geographical and geological general information;
- Conducting many surveys on ground-water resources;
- Surveying the number of Aflaj and identifying the quantity of their water productivity;
- Developing wastewater treatment plants with an annual production capacity of 108 million cubic meters;
- Afforestation areas have been developed and reach 300,000 Dunms;

- Establishment of several natural reservations on islands and remote desert areas;

- Dubai, AI Ain, Shwjah and Abu Dhabi. Municipalities have prepared land-use maps defining agricultural, urban and public areas;

- Agricultural policies in the UAE have been geared to encourage rational use of natural resources and achieve the highest level of yields. Also, there is a common agricultural policy for WC which was drawn in 1984 and amended in 1999;

- A National Committee will be formed to carry out the action programmes to combat desertification. However, the need arises both at UAE and GCC levels for technical assistance from donors and international organizations. However, UAE intends to include these technical needs within programmes prepared for combating desertification.

UZBEKISTAN

1. **The profile of the country, strategies and priorities established within the framework of sustainable development plans and/or policies**

The issues of desertification and drought control hold top priority in securing sustainable development in the Republic of Uzbekistan, where deserts and semi-deserts occupy 80 per cent of the territory.

About 10 million hectares of rangelands require radical improvement. Overgrazing and cutting of forests for firewood and other purposes led to a considerable reduction in the arboreal-shrub vegetation in the desert zone. Since 1965 the area of woodlands has decreased by half.

Shifting sands occupy approximately one million hectares in the Republic of Uzbekistan. Only recently they spread out to the area of 200,000 hectares along the margins of irrigated lands, thus creating a serious threat of intensification of desertification processes.

Land degradation is also taking place on irrigated lands involved in agricultural production. Over 50 percent of irrigated lands are subject to secondary salinization. Water erosion has affected over one million hectares of ploughlands.

The past quarter of a century has witnessed an unprecedented degradation of the Aral Sea, one of the world's largest land-locked water bodies. Its water level has dropped by 17 metres, and its water surface has shrunk by more than half. The dried-out seabed has become the arena of a new sand and salt desert with an area of over 30,000 square kilometres. Change of climate, landscape, fauna and flora, as well as increasing salt and dust transport in the Aral Sea littoral area and the surrounding territories have intensified desertification processes in that region. The deterioration of the environmental situation has both direct and indirect impact on the quality of life and health of 35 million people living in the Aral Sea basin.

This explains the active participation of the Republic of Uzbekistan in the preparation and implementation of the United Nations Convention to Combat Desertification. The Republic of Uzbekistan was the first country in Asia and the CIS to ratify the Convention. It participated actively in all phases of its preparation.

UNEP has given the Republic of Uzbekistan both financial and technical support in designing the National Action Plan to Combat Desertification in the

country. A wide range of prominent Uzbekistani scientists and professionals were involved in drafting the text of the National Action Plan. A number of workshops were held in the city of Tashkent and the areas most severely affected by desertification, namely, Bukhara, Samarkand, Urgench and Karakalpakstan.

The workshops have permitted the involvement of local communities, NGOs, students of institutes of higher education (soil specialists, land surveyors, hydraulic engineers, etc.) in implementing the Convention at the national level. The Government of Uzbekistan has already launched a number of projects aiming to combat desertification. They are related to the provision of rural population with clean drinking water and gas, and development of small-scale power engineering using alternative energy sources. A lot is being done in changing farm crop patterns, reducing the cotton mono-culture, and increasing the area of land under cereals, vegetables and forage grasses.

However, difficulties of the transition period do not permit to implement all measures required for preventing land degradation resulting from human-induced impact in full measure. One of these problems is secondary land salinization caused by a deficit of water resources. It is necessary to develop desert monitoring based on modern geographic information systems and intensify control over a wise use of land.

2. The institutional measures taken to implement the Convention

In 1995 the Oliy Majlis (Parliament) of the Republic of Uzbekistan ratified the United Nations Convention to Combat Desertification. A steering committee for designing the National Action Plan to combat desertification and drought was formed, and the text of the NAP was prepared. Glavgidromet was identified as the national focal point. On behalf of the Government of the Republic of Uzbekistan, it takes an active part in implementing the CCD at the national and local levels. The legislative regulation of environmental relations is based on the Constitution of the Republic of Uzbekistan, as well as the laws, edicts and regulatory acts of the President and the Government, international commitments and departmental acts.

3. Participatory process

The Steering Committee for designing the National Action Plan included representatives of Glavgidromet, the State Committee for Science and Technology, the State Committee for the Protection of Nature, the State Forestry Committee, the Chairman of the Council of Ministers of the Republic of Karakalpakstan, the Ministry of Agriculture and Water Resources and institutes of the Academy of Sciences of Uzbekistan. Scholars, professionals from ministries and departments, university professors and NGO representatives participated in drafting the text of the NAP. Regional workshops were conducted, which involved a wide range of stakeholders in designing the NAP.

Financial support of the Government of Finland and logistical assistance of the UNSO and the UNDP Office in Uzbekistan permitted to implement a project promoting actions aimed at desertification control. Workshops were held under the project in the areas most affected by desertification. The workshops were held at the state universities of the cities of Bukhara, Samarkand, Urgench and Nukus, which permitted to place the desertification problem in the focus of the attention of professionals, researchers, professors and, what is most important, students. Graduate students will constitute the main labour force that will tackle the implementation of the programme to combat desertification at the local level. Reports on regional desertification problems were presented at the workshops. The workshops nominated representatives to attend the National Forum held in Tashkent. Representatives of the CCD secretariat, UNDP, ministries, universities and NGOs took part in the Forum. The mass media gave extensive coverage to the Forum. The participants also stressed the need for international assistance in implementing the Convention at the national level.

4. The consultative process in support of the preparation and implementation of the National Action Plan and the partnership agreement

Active support is given by the CCD secretariat, permitting representatives of Uzbekistan to attend international meetings which help them identify priority areas for action. Uzbekistan participates actively in thematic networking, preparing materials and transmitting information at the request of TPN centres. Representatives of various countries provide their materials and participate in workshops on desertification problems and wise use of water resources.

Uzbekistan is conducting targeted work to address the repercussions of the Aral Sea disaster. International agreements have been concluded to this effect. Projects supported by international organizations are underway. However, the Aral Sea crisis has affected not only its littoral area but also the entire Central Asian region, the main reason being the water resources deficit.

The NAP includes priority projects requiring financial support from international agencies and donors. Implementation of these projects will permit to gain new experience in controlling land degradation and apply it at both the national and international levels.

5. The measures taken or planned within the framework of the National Action Plan

Considering the importance of land as a natural resource, the land surveillance service and land-use inspection have been separated from the Ministry of Agriculture and Water Resources. They provided a basis for establishing the State Committee of the Republic of Uzbekistan for Land Resources, subordinated directly to the Cabinet of Ministers.

Active participation of independent Uzbekistan in major international environmental conventions and nature protective activity of international governmental and non-governmental organizations is largely determined by the extent to which the provisions of these conventions and agreements are taken into consideration in national laws and regulatory acts.

Nature protection programmes have been designed and are being implemented in Uzbekistan. They are closely related to desertification control and they are:

National Programme to Stop the Use of Ozone-Depleting Substances (ODS)

The aim of the National Programme is to meet the commitments stemming from the Vienna Convention and the Montreal Protocol on Ozone-Depleting Substances.

National Strategy and Action Plan to Preserve Biological Diversity

The main priorities of the National Strategy and the Action Plan are as follows:

- Establishment of a National Commission on biological diversity;
- Assessment of the current state of biological diversity;
- Reorganization and development of a network of specially protected territories;
- Division of responsibilities in managing biological resources;
- Public awareness and participation in preservation and non-destructive use of biological diversity;

- Specific interventions and mechanisms of non-destructive use;

- Calendar plan, funds and their sources.

Uzbekistan: Study of Climate Change in the Country

This national project of capacity-building to enable Uzbekistan meet its commitments under the Framework Convention on Climate Change conforms to its goals.

Aral Sea Basin Programme (ASBP)

Design of the Programme started in 1994 following a donor meeting in Paris under the World Bank auspices, and is coordinated by the International Fund for the Aral Sea.

Phase I of the Programme attached priority to the design of the *Strategy of Rational Water Use and Protection of Water Resources in the Aral Sea Basin* as well as to the interstate projects 'Clean Water' and 'Sanitation'. Implementation of these projects has started in Uzbekistan, Kazakhstan and Turkmenistan. Phase II of the GEF Project, within the framework of the Aral Sea Basin Programme, began in July 1998.

The National Environmental Action Plan for the Republic of Uzbekistan

The Action Plan is primarily intended for the public health and the environmental sectors that act as the main forces in planning and implementing national actions in this area, in collaboration with other sectors and social groups.

Creating Favourable Conditions for People's Life

The economic reforms launched in the country attach great importance to the improvement of living conditions of the rural population and its provision with clean drinking water and natural gas. The following programmes have been prepared and are under implementation: the Rural Infrastructure Development Programme, the Programme of Providing Rural Population with Drinking Water and Natural Gas and others.

6. Financial allocations from national budgets in support of implementation as well as financial assistance and technical cooperation received and needed, identifying and prioritizing requirements

The national budget stipulates for funding interventions to combat desertification in the form of targeted programmes to be implemented by relevant national ministries and departments. Scientific research is conducted by research institutions with the support of the State Committee for Science and Technology. The submitted report has been prepared with the support of the CCD secretariat ($4,000).

The National Action Plan to Combat Desertification was designed with UNEP financial and technical support in the amount of $60,000.

Regional workshops and the National Forum in Tashkent were held with the financial assistance from the Government of Finland and UNSO technical support ($50,000).

Representatives of Uzbekistan attend international workshops and meetings thanks to the support of the CCD secretariat.

Difficulties of the transition period prevent Uzbekistan from implementing a number of projects to combat desertification; therefore, to implement priority projects, the NAP requires financial assistance from international donors.

Assistance from the international community is especially required for designing and implementing regional programmes and projects.

7. Review of indicators

A comprehensive paper was prepared, presented and discussed on the need for and role of a national environmental information system in combating desertification in Uzbekistan. It identified many facets and sets of data that are needed for the diagnosis and effective control of desertification. These sets of data are scattered in many organizations, in government, and international organizations. All are of different forms and formats and of varying qualities. It was proposed to strengthen the important and crucial institutions so as to improve their data sets and have the capacities to network and facilitate the exchange of data and information.

VIET NAM

Nowadays environment protection is not only an important national own interest, but also a great global concerned aspect. In Viet Nam, this issue has become a great concern of the State since the 1980s. It has also been mentioned in the Constitution of the Socialist Republic of Viet Nam since 1980. The National Action Programme on Environment and Sustainable Development for the period 1991-2000 and the Law on Forest Protection and Development approved in 1991 had set a very important start for the follow-up activities in environment protection progress in Viet Nam.

Recognizing the important global meaning of environment protection, Viet Nam has signed and become a member of several conventions on environment protection and the 134th country member of the Convention to Combat Desertification (since August 1998).

Viet Nam has long and narrow deserts. The yellow and white sand areas are located along the central coastal areas with 400,000 ha and in Cuu Long River Delta with 43,000 ha. According to a map drawn by FAO and UNESCO, there are about 462,000 ha of coastal sand areas (1.4 per cent of the total geographical area of the country) and 87,800 ha out of this are the yellow sand dunes. The sand areas are concentrated in 10 central coastal provinces from Quang Binh to Binh Thuan with the total area of 400,000 ha. During the last 32 years (1967-1999) there has been a serious desertification process. Every year, there is a loss of 10-20 ha of agriculture land due to the sand dune moving. In the above-mentioned provinces there is a very arid hot climate with annual rainfall only 500-700 mm (the arid hottest is Binh Thuan province).

Besides sand areas, there are more than 2 million hectares of degraded land scattered all over the country. This degradation happens mainly in northern mountainous areas. The desertification process is summarized and characterized by the following factors:

- It is the process of land degradation, unfertile for flora growing;
- It is the result of deforestation by inappropriate agricultural practices, extensive logging and chemical use during the wars;
- It is the cause of soil erosion;
- It is caused by unsustainable land use;
- It is caused by extensive water use;

- It is caused by sand dune moving;

- It is a result of water and soil pollution;

- And it is the impact of extensive silvopastoral practices.

Nowadays in Viet Nam there are still about 7 million hectares of bare land. The fertility of soil has been dropped or seriously degraded. Forests have been seriously depleted. The forest cover is today only 33 per cent, 10 per cent less than the one in 1945. Deforestation happened seriously in the two periods: 1960-1970 and 1976-1990. The underground water has been deteriorated in quantity as well as in quality, mainly by water exploitation for coffee production in Central Highland. Water has also been polluted by the chemical industry. It is estimated that the lack of water will be a serious problem in the next decade. During the last five years, drought has happened more seriously in the whole country, but especially in the central region. The most serious and longest drought over the last 60 years happened and lasted six months during the dry season of 1998 due to the El Niño, which had caused a very bad impact on agriculture and forestry in eight provinces of the central coastal region and Central Highland. Land cracking and soil erosion have also become more and more serious in Cuu Long river delta. A survey has recorded 51 cracking points with 350 ha of land lost every year. It is estimated that the total land lost by cracking and erosion will reach 10,000 ha. Sea resource exploitation has also been another reason for water and land pollution. Sea products have been mainly exploited near coastal areas by the use of poisonous chemicals or explosives. Oil is the main chemical causing water and soil pollution (during the period 1992-1996, the oil content in the sea water increased from seven to 20 times).

Since 1989, the economic system has changed from the concentrated planned mechanism to market oriented mechanism. And since then several programmes and projects not only in socio-economic development but also on environment protection have been intensively implemented. Viet Nam, since that time benchmark, has not only presented its great progress in hunger eradication (today as the third biggest country of the world in rice export, in 1999 with 4.55 million tons) but also committed its responsibilities in global environment protection propagation. The year 1990 has been the milestone marking a significant achievement of Viet Nam in environment protection. A number of laws relating to the desertification combating process had been formulated during the period 1990-1998. Viet Nam has stressed its responsibilities/commitments in joining the world in global environmental issues by signing agreements to become a member of several international conventions on the environment. A number of programmes and projects have also been intensively implemented since 1990.

Beside great achievement, there are still, however, many problems and constraints caused by the economic changes. There is still a lack of adequate knowledge of people on environment protection. Environment protection is still not mentioned as the major issue to be taken in many provincial plans on socio-economic development. A more appropriate policy system for environment protection is still to be adjusted and adopted. The Decree 36-CT/TW, June 1998, of the Communist Party to strengthen activities on environment protection in the modernization and industrialization period has developed the strategy to adopt the environment protection as an important issue of every national socio-economic development action.

In this situation, being a member of several international conventions on environment issues, as well as of UNCCD, is an essential further step of Viet Nam in joining the global environment propagation and in setting up long-term strategies of the country on environment protection and sustainable development.

The national report has followed exactly the Guidelines of UNCCD, decision 11 of COP 1. It has drawn briefly the main information on environment protection as well as in land conservation, forest protection and development,

water conservation and sand dune fixation activities of Viet Nam. This report is the result of the collaboration/cooperation among the representatives of the Government Office; the Ministry of Foreign Affairs; the Ministry of Planning and Investment; the Ministry of Science, Technology and Environment; the Ministry of Agriculture and Rural Development; the Viet Nam Forestry Science Association; UNDP; FAO and the executing agencies of international programmes and projects ongoing in Viet Nam. The report is also the result of a National workshop with the participation of many other social, economic, environmental sectors and institutions relating to the environment protection and sustainable development in Viet Nam.

The main content of the report is divided into eight parts:

1. Summary;

2. Strategies and priorities established within the framework of sustainable development plans and/or policies;

3. Institutional measures taken to implement the Convention;

4. Participatory process in support of preparation and implementation of action programmes;

5. Consultative process in support of the preparation and implementation of national action programmes and the partnership agreements with developed country and other interested entities;

6. Measures taken or planned within the framework of national action programmes;

7. Financial allocation from national budgets in support of implementation as well as financial assistance and technical cooperation including their inflows, and the process to identify their requirements, areas of funding and set a priority;

8. Review of benchmarks and indicators utilized to measure progress and an assessment thereof;

The priorities and strategies of the country relating to desertification combating are indicated as follows:

- Population growth control to release the pressure on natural resources;

- Sustainable management of natural resources;

- Forest protection and development;

- Urban and industrial zones development planning;

- Research, training and extension activities on environment;

- Disaster control and forecasting system;

- Planning and policy formulating on environment;

- Control the process of desertification, forecast the impacts of this process to the most endangered provinces/areas and support these localities in setting up a socio-economic development plan with environment protection concern.

The report also draws up some models on sand dune fixation along the central coastal areas, of which the successful implementation is the result of Professor Lam Cong Dinh's works on application of some specific species for sand dune fixation as *Casuarina equisetifolia* and *Azadiracta indica* in setting up forests against sand dune moving in some central provinces of Viet Nam. Professor Dinh has been nominated for the Ho Chi Minh Award in 2000.

The report stresses the important role of local people and women in activities related to desertification control. If the programmes and projects on environment protection are not implemented by local people, they will hardly be successful.

The report has also mentioned a tentative organization structure of the National Coordination Body and the proposed National Focal Point and the mobilization of organizations and people to participate in the National Action Programme on Environment.

The important role of international cooperation and the necessity of integrated programmes/projects on the environment to high up the efficiency of the cooperation have been emphasized. The great contribution in terms of financial support and technical assistance by international organizations, by government and non-government organizations in activities on desertification combating in Viet Nam has also been highly appreciated.

YEMEN

Desertification is one of the problems threatening the lands of the Yemeni Republic and other natural resources. Such land deterioration accelerated due to the increase of pressure on limited natural resources, resulting in a decrease of production. Desertification appears in different forms. Recent estimates indicated that 97 per cent of Yemen's Republic is affected by various degrees of desertification. Consequently, the Government of the Republic of Yemen quickly signed and ratified the United Nations Convention to Combat Desertification and works in close cooperation with the international community that aims at combating such detrimental natural phenomena. This summary sheds light on efforts carried out by the Republic of Yemen to implement this Convention:

1. Strategies and priorities established within the framework of sustainable development plans or strategies.

The Republic of Yemen set within its strategies and priorities the establishment of sustainable development projects. Some of these projects are concerned with combating desertification, such as the implementation of the national plans that covers a five year plan for social and economic development (1996-2000). These include conservation of water resources, development, and wise management, along with other environmental subjects. Most of these plans have been implemented, with some remaining activities still under implementation until today.

With reference to the national plan for environmental measures, priorities were determined for environmental problems in Yemen. They address soil and natural resources deterioration, over exploitation of the water table and water pollution.

The Republic of Yemen prepared a Desertification control plan. This plan was considered the main reference of combating desertification for all international, regional, and national organizations. The Republic of Yemen implemented a number of projects related to combat desertification in different areas of the Republic, aiming to control soil erosion, sand dune stabilization, land classification for agriculture use, forestry development and a general

increase of green areas. At present, a number of projects are under implementation, as well as there are numbers of future projects distributed in different zones of the country. All above-mentioned projects aim at controlling desertification. One of the most important issues related to desertification is poverty alleviation which aims at developing areas depending on local community strategies, in such a manner, to hand over control to local communities. Since 1998 a water strategy is under implementation which aims at addressing the acute imbalance between people and water resources.

2. Measures taken to implement the Convention.

The GDFDC was appointed NCB, because it was considered the national authority involved in the implementation of different activities such as management of forestry-range resources and Desertification control. Implementation of the Convention within GDFDC is carried out in two ways, as follows:

(a) Focal point (FP): the General Director of GDFDC was appointed Focal Point to follow up on the development and progress of implementation of the Convention at national, subregional, regional and international levels;

(b) National Network to combat desertification: This network includes members from varicus governorates within the Republic of Yemen. It carries out the collection and updating of information with respect to Desertification control and easing the strain of affected areas, which have priority in Desertification control, contribution in evening extension gatherings linking and coordination the affected areas. Enlarge this network by including a number of governmental and non-governmental corporation concerned with desertification control, communication and coordination between members of the authority and people concerned is achieved by running activities through direct communication or fast facilities available such as telephone or fax; communication with subregional, regional and international organizations is achieved through fax, mobile telephone, e-mail and internet.

The authority is implementing the national work programme and similar activities in desertification control, strengthening capacities for forest, range management, watershed, preparation of maps and supporting the contribution of non-governmental organizations, particularly women associations, agricultural cooperation unions in desertification control.

3. Participatory process in support of preparation and implementation of action programme

It is not possible to create sustainable development plans without integrating national stakeholders into development strategies. It should be recognized that there is a shortage of quantitative and qualitative information on conditions of natural resources in the country. As a result, there is a shortage in education about environmental deterioration and its impacts. Another shortage lies in the preparation and implementation of a national programme of work. It is to be noted that awareness and involvement increased over the last period of time as a result of efforts exerted by the GDFDC. Such achievements targeting large sectors of the society resulted in an improved awareness and the public more readily recognizes in areas such as desertification. Efforts are exerted by Broadcasting, Education, Awkaf, Extension, Youth, Sport Sectors and Environmental Protection Council (EPC).

It is worth mentioning that the Republic of Yemen received aid from the Kingdom of the Netherlands for implementing a project in Policy Gender in

Agriculture and Food Security. This assistance was granted based on the belief that the role of women and their contribution in protecting and managing natural resources, as well as in desertification control in general, is important.

4. Consultative process in support of the preparation and implementation of national action programmes and partnership agreement with developed country parties and other interested entities

The Republic of Yemen is working in desertification control with regional and international agencies, through the implementation of different bilateral or multilateral desertification control projects, or research working plans, such as five year plan projects related to desertification control. Also, an invitation was forwarded to developed countries to participate in national workshops concerning desertification control, rehabilitation of deteriorated natural resources, reactivation of the women's role and people's contribution. The main on-going activities with those agencies are:

(a) Sustainable environment management programme: This programme consists of seven subprogrammes. It aims at building capacities for a number of government corporations, non-governmental organizations in environment management, soil deterioration and sustainable utilization of natural resources;

(b) Soil and water conservation project: This project aims at maintaining terraces, implementing an appropriate watershed management and sand dune stabilization;

(c) Environment protection project in Tihama: This project aims at strengthening the Government's programme of improving the living standards within rural areas;

(d) Sustainable Environmental management project: This project aims at building up administrative capacities for the national authority of water resources;

(e) Forestry development project: This project aims at strengthening GDFDC in developing plans concerned with the forestry sector, extension regulations and the collection of information about natural resources and its management.

(f) To fulfill called regional and international counterparts to participate in a number of workshops, mainly "The National Conference on Desertification Control", "National conference to review the National Plan to control Desertification and two technical workshops", (first and second) for the preparation of national policy in watershed.

5. Measures to be taken or planned within the framework of national action programme

The Republic of Yemen prepared a National Action Plan to control Desertification in cooperation with UNEP & ESCWA. This plan was considered the foundation for subsequent national work in desertification control. This plan includes eight programmes and 41 projects focusing on evaluation, common contribution, correction measures for desertification control along with socio-economic, insurance against drought implementation of proposed or planned procedures in desertification evaluation, improvement of range, general contribution, systematic procedures on desertification control, curing socio-economic sides, measures aimed at preventing droughts, strengthening science and technology and international cooperation in desertification control.

The plan includes a number of measures aimed at improving institutional structures and strengthening the level of awareness. The following measures were taken to achieve these goals: the development of GDFDC, the improvement of environmental protection, establishments of funds for agriculture and fish production, water resources authority and reactivation of the high tree planting committee.

Future plans are: to establish the National Committee for Desertification Control in which all related ministries, organizations, official, social and voluntary associations of concern will be represented.

It is worth mentioning that national experts who participate effectively in regional and subregional national networks make all pertinent decisions.

6. Financial allocations from national budget in support of implementation as well as financial assistance to strengthen implementation

The Republic of Yemen has taken necessary steps to ensure the financing of projects related to desertification, with the help of an annual financing plan. These annual financing plans are integrated into the five year plans. It takes these steps in order to create a mechanism of finance. The most important step is the establishment of a financial source that addresses agriculture and fish production.

An important source of finance is derived from selling diesel within the country, along with a government budget allocated in the general budget. These sources of funding are supplemented by external assistance and grants.

Regarding financial allocations from the national budget, expenditures are used for needed manpower, for implementation of the national plan of Desertification, the provision of building furniture needed for the national coordination body, as well as supplementing the financing of projects that are externally financed, such as watershed management and the re-use of sewage water which is financed by The Kingdom of the Netherlands. The Government provides 145 million Yemeni Riyals or them. The Republic of Yemen is classified as a developing country. Thus it had obtained financial and technical support from a number of governments and organizations, mainly FAO, UNDP, IDA and IFAD.

Despite the financial resources allocated from local budget and foreign financial aid, implementation of the national programme in desertification control needs additional financial and technical support. Regarding financial support, it could depend on the following fundamentals:

(a) Provision of extra financial allocations from the national budget to Combat Desertification;

(b) Provision of financial component needed for desertification control in development projects;

(c) Encouraging the establishment of trans-boundary projects in international borders and searching for funding these projects;

(d) Increasing the coordination with local financial sources;

(e) Encouraging the contribution of Regional and International financial sources.

Regarding technical cooperation: it is proposed to develop this cooperation with developed countries, international and regional organizations concerned as follows:

(a) To upgrade scientific standards in desertification control;

(b) To support projects implementing traditional techniques related to water harvesting and resources conservation;

(c) To encourage the stability of local rural communities and a decrease in the immigration to towns;

(d) To establish a specialized centre for desertification control;

(e) To encourage the application of modern technology in providing energy alternatives;

(f) To increase the utilization of remote sensing and, GIS, in desertification monitoring and control as well as to establish a qualitative database.

7. Review of benchmarks and indicators utilized to measure progress and an assessment thereof

Until now Yemen has no systematic benchmarks and indicators to measure the application of the programme of work. For this reason a number of benchmarks and indicators derived from the documents distributed by the permanent secretariat of UNCCD or approved and used by some country Parties have been used by Yemen. The following, is benchmarks and indicator depends on:

Establishment of an environmental protection council as a mechanism to observe environment and evaluation.

(a) Establishment of a unit for evaluation and monitoring within the national coordination body as a follow-up mechanism ;

(b) Starting up the establishment of GIS and foundation of an informational system;

(c) Issuing quarterly and annual reports in the field of desertification control;

(d) Implementation of pilot projects and extension of their results to similar areas;

(e) Reactivation of the role of women through Gender Policy;

(f) Including desertification control programmes within development plans;

(g) Developing coordination with international agencies through signing assignments;

(h) Adopting of a number of traditional knowledge which has been accumulated by Yemeni farmers through the ages.

From the above-mentioned, it could be observed that the Republic of Yemen started implementing a number of concerned activities related to implementation of the United Nations Convention to Combat Desertification. The Republic of Yemen faced some obstacles in this respect, such as trained personnel and lack of modern equipment, which are needed to establish an informational network. Experience showed that cooperation with developed countries, regional and international organizations enables the national coordination body to implement the UNCCD, in particular, reactivation of women's role, increasing of people's contribution and training of technical personnel.

There is no doubt that the continuous implementation of the Convention, in wide and better aspects, needs additional efforts and provides a number of essential factors, mainly technical support and fund allocation, which will help the Republic of Yemen to follow the international trend in this domain.

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Convention to Combat Desertification

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IMPLEMENTATION OF THE CONVENTION

(a) REVIEW OF REPORTS ON IMPLEMENTATION OF AFFECTED COUNTRY PARTIES OF REGIONS OTHER THAN AFRICA, INCLUDING ON THE PARTICIPATORY PROCESS, AND ON EXPERIENCE GAINED AND RESULTS ACHIEVED IN THE PREPARATION AND IMPLEMENTATION OF NATIONAL ACTION PROGRAMMES

(b) REVIEW OF THE REPORT ON PROGRESS MADE IN THE FORMULATION AND IMPLEMENTATION OF SUBREGIONAL AND REGIONAL ACTION PROGRAMMES IN REGIONS OTHER THAN AFRICA

Addendum

PART ONE: SYNTHESIS OF INFORMATION CONTAINED IN NATIONAL REPORTS FROM AFFECTED ASIAN COUNTRY PARTIES

PART TWO: PROGRESS MADE IN THE FORMULATION AND IMPLEMENTATION OF THE SUBREGIONAL AND REGIONAL ACTION PROGRAMMES IN ASIA

Note by the secretariat

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PART ONE: SYNTHESIS OF INFORMATION CONTAINED IN NATIONAL REPORTS FROM AFFECTED ASIAN COUNTRY PARTIES

I. INTRODUCTION

1. The United Nations Convention to Combat Desertification (UNCCD) provides, in article 26 that: "Each Party shall communicate to the Conference of the Parties for consideration at its ordinary sessions, through the Permanent Secretariat, reports on the measures which it has taken for the implementation of the Convention. The Conference of the Parties shall determine the timetable for submission and the format of such reports."

A. Mandate

2. In accordance with decision 11/COP.1, paragraph 13, the Conference of the Parties (COP) shall, at its fourth session, examine the reports of affected country Parties of regions other than the affected African country Parties, the reports of which were examined at COP 3 held from 15 to 26 November 1999 at Recife, Brazil.

3. Pursuant to decision 11/COP.1, paragraph 17, the secretariat was requested to prepare a synthesis of the national reports setting out the trends emerging in the implementation of the Convention.

4. The procedures for the Parties to prepare their national reports are provided in decision 11/COP.1, so as (a) to organize and streamline the communication of information pursuant to article 26 of the Convention; (b) to facilitate a regular review of implementation by the Conference of the Parties in accordance with article 22, paragraph 2(a), of the Convention; and (c) to promote and facilitate the exchange of information on measures adopted by the Parties pursuant to article 22, paragraph 2(b) of the Convention. Specific objectives of the procedures are as follows:

(a) To ensure the effective assessment of progress towards achieving the objectives of the Convention and to enable the Conference of the Parties to make appropriate recommendations to further those objectives;

(b) To exchange information and data between Parties in order to maximize the benefits of successful measures and initiatives under the Convention;

(c) To ensure that the Committee on Science and Technology (CST) and the Global Mechanism have access to the information and data necessary to carry out their mandates;

(d) To ensure that information on implementation is in the public domain and available to the international community, particularly intergovernmental and non-governmental organizations, and other interested entities.

5. By its decision 5/COP.2, COP reaffirmed decision 11/COP.1 on procedures for the communication of information and review of implementation.

6. The format, content and structure for the preparation of the reports on national action programmes (NAPs) are provided in decision 11/COP.1, paragraph 10 (a). As well as a table of contents and an executive summary, each report shall contain the seven sub-headings or elements agreed upon, as reflected in section III, A to G.

7. The above-mentioned guidelines have been further elaborated in the Help Guide,[2] which was first prepared in March 1999 by the United Nations Institute for Training and Research (UNITAR) and the UNCCD secretariat to assist the African national focal points in preparing their first national reports. This Help Guide was reviewed at the meeting of the Asian UNCCD focal points held in July 1999 in Beijing, China, and also at the Asian regional group meeting at COP 3 and subsequently adjusted for the Asian country Parties.

B. Scope of the report

8. In response to the above-mentioned mandate, the secretariat has prepared this synthesis based on a total of 32 national reports submitted by the following Parties from the Asian region:

> Bahrain, Bangladesh, Cambodia, China, Fiji, India, Indonesia, Iran (Islamic Republic of), Jordan, Kazakhstan, Kuwait, Kyrgyzstan, Laos, Lebanon, Mongolia, Myanmar, Nepal, Oman, Pakistan, Palau, Qatar, Republic of Korea, Saudi Arabia, Singapore, Sri Lanka, Syrian Arab Republic, Tajikistan, Turkmenistan, United Arab Emirates, Uzbekistan, Vietnam and Yemen.

9. Of these, 24 reports (75 per cent) were written in English, three (9 per cent)in Arabic, four (13 per cent) in Russian and one (3 per cent) in Tajik and then translated into Russian and English. Except for five, all reports were received by 25 April 2000. The summaries of these reports are contained in ICCD/COP(4)/3/Add.1 (A), ICCD/COP(4)/3/Add.1 (B) and ICCD/COP(4)/3/Add.1 (C).

C. Approach

10. In synthesizing the information as mandated, the secretariat is mindful of the format and structure of the previous similar report prepared for the affected African country Parties (see ICCD/COP(3)/5/Add.2). The present report basically follows the same structure as the previous report with minor modifications. In particular, a new section on "An overview of the national reports and emerging trends" is added to highlight the main issues and emerging trends in the implementation of the Convention by the Asian country Parties. A section on "Conclusions" is also added to highlight the major findings of the synthesis.

II. AN OVERVIEW OF THE NATIONAL REPORTS AND EMERGING TRENDS

11. Geographically, the reporting Parties that are grouped under the Asian region are very diverse. Nine (28 per cent) are located in East and South-East Asia (Cambodia, China, Indonesia, Laos, Mongolia, Myanmar, Republic of Korea, Singapore and Vietnam); 5 (16 per cent) in South Asia (Bangladesh, India, Nepal, Pakistan and Sri Lanka); 11 (34 per cent) in West Asia (Bahrain, Iran (Islamic Republic of), Jordan, Kuwait, Lebanon, Oman, Qatar, Saudi Arabia, Syrian Arab Republic, United Arab Emirates and Yemen); and 5 (16 per cent) in Central Asia (Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan). Two (6 per cent) reporting Parties are small island states located in the South Pacific (Fiji and Palau). These countries have different physical features, varied climatic conditions and diverse ecosystems. In most cases, even within an individual country, the differences in geography and climatic conditions can be very pronounced. Thus, the issue of desertification and land degradation must be addressed within the context of the specific national circumstances.

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[2] See ICCD/COP(3)/INF.3 of 3 July 1999.

12. With three exceptions (notably small island states), all of these countries are affected or severely affected by drought and desertification. Drought-prone areas and areas affected by desertification make up a large part of their territories. Many of these countries, some recently, have suffered from drought of catastrophic proportions. As billions of people in this region depend on land for most of their needs, recurrent droughts and desertification constitute serious threats to their livelihoods. Indeed, it has been observed that desertification and the loss of crops due to drought might have caused more human suffering than any other problem in the areas concerned. Thus, the prevention of further degradation of land or pasture represents an urgent and pressing environmental and socio-economic challenge for these countries.

13. Most Parties have identified in their national reports the causes of desertification and land degradation, which are physical and/or human factors. The physical factors include: climatic (e.g. lack or reduction of rainfall and hence the lack of surface and groundwater resources; high evaporation rate; and El Niño Southern Oscillation (ENSO)[3] and physiographic variations; fragile ecosystems and geology; low nutrient content or high acidity in soils; soil erosion by wind and water (including floods); landslides (these could also be caused by human activities); sand drifting; forest fires; land degraded by salinization/alkalization; and/or freezing and melting processes on cold plateaux; and the impact of global climate change. The human factors include: population growth; socio-economic and industrial development; urbanization and land-use changes, including agricultural expansion and unsustainable agricultural practices such as slash and burn; development of steep slopes; deforestation or over exploitation of forest resources; over-grazing; over-use or misuse of water resources; irrigation leading to the washing away of the topsoil; excessive use of chemicals and wars. Most Parties have emphasized the linkage between poverty and desertification. Indeed, poverty alleviation remains a major challenge for environmental management and sustainable development.

14. The major impact of desertification and land degradation identified by the reporting Parties includes: loss of natural resources (e.g. land, water and forest); deteriorating socio-economic conditions and livelihood support systems; a diminishing of the food security base of populations and livestock; reduction in irrigation potential; loss of biodiversity; reduced availability of biomass for fuel; and reduction in carbon reservoir or carbon sink.

15. All reporting Parties have formulated policies, programmes and/or plans to deal with environmental degradation, including desertification and land degradation. Many have also formulated specific policies, programmes and/or plans to deal with desertification. Some have taken initiatives before and even well before the advent of UNCCD. However, UNCCD has proved to be a catalyst for many countries to focus or re-focus on the issue of desertification, as reflected by the formulation of strategies and policies, and the establishment of institutional frameworks for implementing national, subregional and regional action programmes, many of which are still in the formulation process.

16. Many Parties recognize that it is far more cost-effective to prevent desertification than to regenerate already damaged land. Increasingly,

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[3] A phenomenon which causes the periodic warming of the tropical Pacific Ocean and the consequent disruption of the atmospheric circulation bringing extreme weather and climate to many low-latitude areas. El Niño events have a severe impact on many parts of the world, affecting patterns of temperature, rainfall and other weather variables such as the frequency of tropical storms. While some consequences may be beneficial, adverse effects on agricultural production, water supplies, flood and storm occurrence, and other determinants of human well-being and economic health frequently occur.

therefore, efforts have been refocused to tackle systematically the root causes of the problem. These Parties also recognize that the solutions to desertification are closely linked to environmental, social, economic, cultural, and political issues. Thus, a holistic, coordinated and comprehensive approach is required for the overall management of land use of drylands. Action must be centred on solutions that address the need for viable livelihoods of affected people. In this respect, political will needs to be strengthened to find the solutions to desertification.

17. Many Parties indicated that they lack the financial resources, and hence the means, to sufficiently implement the Convention. Some still need technical and/or financial assistance to complete the national action programming process and move into the operational phase. Indeed, almost all reporting Parties have expressed their financial, technical and technological needs for combating desertification. Capacity-building remains the most immediate priority for them to effectively implement the Convention.

18. Certain specific features have emerged from the subregions (annex I). For example, in West Asia, the combat against desertification and the response to severe climatic conditions have played an integral part of development strategies that were established in these countries, even before the existence of UNCCD. This feature could explain why the response to the establishment of a national action programme fully compliant with UNCCD provisions has not been as pronounced as might have been expected. Some Parties in the subregion, suffering a water crisis in their arid and semi-arid areas, have adopted measures for preserving existing agricultural land and the landscaping. These include the formulation of legislation to strictly monitor the use of groundwater and drilling of wells; improving irrigation methods (e.g. to replace the traditional methods of flood and unlined channels by modern irrigation methods such as drip and sprinkler irrigation); replacing high-irrigation requirement crops with others; introducing tariffs for using the underground water, using treated sewage effluent (TSE) for irrigation; constructing land drainage; zoning of agricultural land; improving agricultural research activities; enhancing agricultural extension services; and supporting agricultural input by limited levels of subsidies. The emerging features of the West Asian subregion are described in more detail in annex I (A).

19. The main specific feature of the Central Asian subregion, however, is that it is comprised of countries with very similar patterns of historical, economic and political development, in both the pre- and post-independence period. Since the early 1990s, all countries of the subregion have been undergoing the process of radical socio-economic reforms, including democratization, decentralization, privatization, transparency and improved access to information for ordinary citizens, land reforms etc., which have direct or indirect implications for environmental protection, including the combat against desertification. The transformation period is accompanied in most countries by serious economic difficulties, which, in some cases, are exacerbated by political disturbances. Despite these difficulties, the Central Asian Parties have not only ratified the Convention, but also adopted measures that are conducive to the effective implementation of the Convention. The transboundary projects, such as those on the Aral and Caspian seas, reflect the subregional cooperation for, *inter alia*, combating desertification and land degradation. The emerging features of the Central Asian subregion are described in more detail in annex I (B).

20. The countries with economies in transition are not only restricted to the Central Asian Parties. To a lesser or greater extent, they also include such countries as Cambodia, Laos, Mongolia, and Viet Nam where the national economies are undergoing a similar transformation, and hence their strategies and policies on environmental protection, including a land-use system that has implications for land degradation, have been going through substantial reforms. This is the prominent trend among this group of countries.

21. Another interesting emerging trend is the partnership formed between developing country Parties themselves, as reflected by a number of their joint projects and programmes that are mutually beneficial. This shows that much expertise and experience can be shared between developing country Parties, and that the potential for the developing country Parties' partnership should be further and more fully explored.

22. In many countries, the consumption of firewood (including charcoal) has led to large-scale denudation and destruction of forests, which contribute to land degradation. Hence there is a need for integrating sustainable energy development as part of the strategy for combating desertification and for preventing land degradation. Some Parties recognized that renewable energy resources could provide the basis for sustainable energy development.

23. Many Parties link the issues of desertification and land degradation with those of the Convention on Biological Diversity (CBD) and the Framework Convention on Climate Change (UNFCCC). To illustrate this point, a Party pointed out that in addition to the conservation and enrichment of biological activities and soil and water conservation, UNCCD would greatly help in reducing the rate of CO_2 emission by sequestering CO_2 in terrestrial ecosystems, and hence this would make a strong case for UNCCD to be seriously considered by the multilateral donor agencies as a separate focal area of action (with reference to the Global Environment Facility). There is a need for programme coordination, cooperation and synergy between these three conventions, especially between CBD and UNCCD, so as to maximize the efficiency and effectiveness of their respective programmes.

III. SYNTHESIS OF INFORMATION CONTAINED IN NATIONAL REPORTS

24. Twenty reporting Parties (62.5 per cent) followed or largely followed the reporting Guidelines as provided in decision 11/COP.1 by including all or most of the seven sub-headings or elements in their national reports. In some cases, however, the descriptions under specific sub-headings or elements are rudimentary because key steps in the implementation of the Convention (i.e. the consultative process, participatory process, identification of appropriate benchmarks and indicators) are either not yet established or still in the process of being established. Seven Parties (22 per cent) provided comprehensive reports but they do not include all the sub-headings or elements suggested by the reporting Guidelines. Four Parties (12.5 per cent) provided very brief reports, which can be regarded largely as summaries, focusing on the issues that are of the most concern to them. One Party provided an outline of its draft report, which is expected to be finalized and submitted soon. (A table of contents of a compilation of summaries is contained in annex II.)

25. The information contained in the national reports is synthesized as follows based on the sub-headings or elements suggested by the reporting Guidelines.

A. Strategies and priorities established within the framework of sustainable development plans and/or policies

26. All reporting Parties recognized the importance of sustainable development, as reflected by the development and formulation of the sustainable development strategies, policies, plans and priorities for various key socio-economic sectors, such as agriculture, industry, land use, forestry, the coastal zone and energy. Many have adopted strategies to implement Agenda 21, or have developed a national and/or local Agenda 21 for the key socio-economic sectors. These strategies have contributed to the prevention of desertification and land degradation. Some Central Asian Parties indicated that consequent to the political events in their countries more attention was paid to sustainable development and environmental protection in general, especially to the prevention of land degradation and to combat desertification.

27. All reporting Parties have enacted legislation to protect their environment and natural resources, such as land, coastal, marine, forest, water and energy resources; some of them did so well before the United Nations Conference on the Environment and Development (UNCED) held in 1992 at Rio de Janeiro. The environmental legislation is usually reflected in their national development plans (for example, in five-year plans) or master plans; national conservation strategies or environment policies; national environment action plans (NEAP) or national action programmes on the environment (NAPE). The environmental legislation of some Parties is also based on the constitution of the country. Information on the enforcement process of legislation in most reporting Parties, however, is largely lacking; though some admitted that the enforcement of legislation could be further improved.

28. Of the 32 reporting Parties, 8 (25 per cent) have specifically formulated their national action plans or programmes (NAPs), of which 6 were formulated under the UNCCD process. Five (16 per cent) reported that their NAPs for desertification are being dealt with as part of their national environment or sustainable development plans; five (16 per cent) reported that they have initiated the NAP process; seven (22 per cent) have not yet started the NAP process; while three (9 per cent) have not provided any information. With or without NAPs, most reporting Parties in various subregions have a long history of developing programmes for combating desertification and preventing land degradation, including afforestation programmes; social forestry and agro-forestry development programmes; and forest conservation and protection, especially against fires. Most reporting parties expressed the need for financial and technical assistance to prepare the NAPs, including, in some cases, a review of existing strategies, programmes and plans in the light of the added value derived from the Convention. The status of the NAP process in Asian Parties is given in annex III.

29. Of those who have formulated NAPs, most provided very little information on the implementation, though some indicated that their NAPs are being implemented in phases. For example, China has set three phases to implement its NAP: from 1996 to 2000, from 2001 to 2010, and from 2011 to 2050; and this timetable is coherent with its National and Social Development Plan.

30. The top priority of most of the reporting Parties for sustainable development is to eradicate poverty. In addition, the priority areas identified by the reporting Parties for action to combat desertification and land degradation include: (a) responding to population growth; (b) institutional, human and technical capacity-building; (c) natural resources inventory; (d) assessment of desertification and land degradation, including status, causes, processes, rates of degradation, physical and socio-economic impact, technologies for land use and water resources, and best practices; (e) monitoring of desertification and land degradation, including development of observation networks, indicators and on early warning systems; (f) access to information and networking; (g) development of measures for rational forest utilization, afforestation and improvement of forest protection; (h) rehabilitation of pasture and forest lands; (i) sustainable energy development, including the efficient use of biomass energy; (j) improvement of degraded lands with a view to preventing salinity, and water and wind erosion of soils, so as to enhance land productivity for the rural economy; (k) development of appropriate legal and economic instruments to create incentives for effective and better use and management of natural resources; (l) development of measures on farming adjustment to climate change and droughts (e.g. reducing the cotton mono-culture as reported by one Party in Central Asia); (m) improvement and wide application of soil-protection technology of cultivation of farm crops; (n) stabilizing moving sands to protect pastures, populated areas and economic objects; (o) public awareness on desertification and land degradation; and (p) development of traditional industries, business and sectors of agriculture. Some of the above priorities are immediate, while others can be pursued in the longer term.

B. Institutional measures taken to implement the Convention

31. All reporting Parties have undertaken relevant institutional measures to implement the Convention. These include the establishment of an institutional framework for coherent and functional control of desertification; and designation of relevant ministries or officials as the national focal points (NFPs) to facilitate and coordinate integrated planning and implementation of activities of the Convention at national, subregional, regional and international levels.

32. Of the 32 reporting Parties, 22 (69 per cent) have established national coordinating bodies (NCBs) or national coordination committees to provide policy guidance on issues related to the implementation of UNCCD; to promote education, public awareness and capacity-building; to review and update NAPs; and to strengthen inter-agency coordination and implementation of specific programmes for combating desertification. Seven Parties (22 per cent) have established or are planning to establish NCBs. Three Parties (9 per cent) did not provide any information.

33. NCBs are often intersectoral and multidisciplinary in character, and their meetings are often attended by stakeholders, including multisectoral representation from key government ministries and departments (in some cases including provincial government representatives); academic and research institutions; non-governmental and community-based organizations, including women's and youth groups; the private sector; international agencies; and the donor community. Some NCBs are complemented by bureaux or supported by other subcommittees, such as technical and information/communication subcommittees.

34. Most NCBs are located within the ministries in charge of agriculture, water, land, the environment or forestry. One is located in the National Disaster Management Office, one in the Ministry of State and one in the Administration of Hydrometeorology. Within NCBs, an official is usually designated as the National Focal Point. Some NCBs have the legal authority to implement policies and programmes, while others have no such status. The financial resources of some NCBs come from government allocations or donor-funded projects.

35. At least one Party reported that its NCB has improved the organization, coordination, management and supervision of work to combat desertification across countries and it has played an important role in addressing the key issues involved and in coordinating various activities of the departments concerned.

36. Apart from NCBs, two Parties have also established a national committee for sustainable development (NCSD) and made it the lead institution in formulating and developing environmental strategy and policy, including those related to desertification and land degradation. One Party is in the process of creating a national council for sustainable development under a proposed Sustainable Development Bill "to provide effective and coordinated decision-making on sustainable development - planning, policies and implementation programmes and, where necessary, to provide for environmentally sound and sustainable resource use and allocation".

37. Some Parties have reorganized their legal and organizational structures to implement land reform policy, accelerate decentralization processes and facilitate self-governance at the local level. Other institutional measures taken by some Parties to implement the Convention include the establishment of (a) thematic working groups; (b) expert groups within NCBs; (c) a roster of independent experts to provide consultation on various fields related to desertification; (d) monitoring, research and development, and training centres

for combating desertification; (e) an information network; and (f) relevant local institutions or centres to coordinate activities at the provincial (or state) and local levels.

38. Two Central Asian Parties reported that in line with unfolding activities on combating desertification, the national system of relevant laws and administrative norms should be further developed and adjusted.

39. One Party in West Asia mentioned the Steering Committee of the Desertification Combating and Green Areas Program of the Arab World, which is the technical secretariat of the Council of Arab Ministers Responsible for the Environment.

C. Participatory process in support of the preparation and implementation of the action programme

40. All Parties recognized that the participatory process is an essential part of the formulation, preparation and implementation of NAPs. Thus, in many instances, necessary measures have been taken to ensure active participation of all relevant stakeholders, including those from both the public and private sector, academic and research institutions; local communities; women and youth groups; non-governmental organizations (NGOs) and the media. These stakeholders are represented at all levels through local and national workshops, seminars, conferences and public awareness campaigns. Questionnaires, semi-structured interview techniques and participatory rural appraisal methods have also been used to facilitate the participatory and consultation processes. In some cases, subregional, regional and international workshops and symposiums were also held within the countries. However, at least one Party reported that some of their stakeholders are not fully responsive. This points to the urgent need for public awareness, education and training at the national and local levels.

41. Many Parties have enhanced local community participation, especially indigenous people, in natural resources management. Some Parties in South Asia have reported information on community-based development strategy and policy for rural development. Legislative measures have been adopted to reduce state intervention, and to empower local and village communities for their involvement in development activities, including natural resource management. The participation of community representatives from areas affected by desertification and land degradation has facilitated the bottom-up approach in defining strategic solutions to the problems.

42. A few Parties that have not yet prepared a NAP indicated that they would involve all stakeholders in the process. To this end, an inventory of stakeholders will be undertaken before the organizational meetings for developing NAPs.

43. As mentioned in almost all the national reports, the NGOS, which are often represented in the NCBs, play an important role in decision-making in the implementation of the Convention. In addition, they assist in promoting public awareness on the issues related to desertification and land degradation. Some of these organizations are involved in planting trees, establishing village plant nurseries and forestry demonstration plots. However, most NGOs are constrained by limited resources, and some need enhancement of their skills. It is to be seen as an encouraging sign that the ability of such organizations to reach out to people at the grass-roots level was reflected in most of the national reports.

44. In order to facilitate the participatory process, many Parties have emphasized the importance of raising public awareness, education and training. These include the establishment and/or strengthening of their information network for sharing information, knowledge and experiences, using multimedia such as television, radio, the Internet, publications (e.g. newspapers and

journals); posters, pamphlets, calendars etc., as effective promotional tools. Environmental courses have also been included in the formal education at primary, secondary and tertiary levels. Training of trainers has also been initiated in some Parties.

45. Many Parties reported efforts on raising public awareness on combating desertification. For example, one Party reported that a large number of volunteers including old people, youth, women, officials, scholars and soldiers appeared on Tree-Planting days, World Environment Day, World Water Day and World Day to Combat Desertification and Drought to undertake such activities as planting trees so as to combat desertification and improve the environment. Another Party reported that on the World day to Combat Desertification, an on-the-spot painting competition for children of different groups was held with a view to sensitizing them to issues relating to desertification and land degradation. Other publicity measures by the NGOs include the publication of UNCCD material on drought and desertification in local languages; identification of historical reasons of droughts and desertification processes; organizing workshops and establishing their focal points for coordination between themselves. Another Party reported the celebration of World Days on the environment, desertification and biodiversity, including forest and soil conservation days at the local level.

46. Many Parties paid special tribute to women who have always played a major role in efforts for combating desertification. One Party reported that efforts to improve women's access to critical input and productive resources (such as land, houses and trees, through joint or individual titles) have been expanded to include support through credit or small-scale capital, marketing and training in skills/management and technology. Developing women's organizations is now accepted as an effective strategy for empowering women. But on the whole, the role of women has not been well documented.

D. Consultative process in support of the preparation and implementation of the national action programme and the partnership agreement with developed country Parties and other interested entities

47. The Parties that have prepared NAPs reported that they have gone through a consultative process often involving relevant stakeholders, including partners with developed country Parties and other interested entities. Indeed, the programmes of many Parties were assisted by international agencies and/or donor countries.

48. Most Parties reported that they made efforts to mobilize funds internally, but given the magnitude of the problem, external assistance remains essential. Formal and informal consultations have been held between many Parties and the donor communities with a view to enhancing cooperation and partnership in the implementation of the Convention. For example, one Party in Central Asia reported on organizing annual round-table meetings for international organizations and partners. Another Party in the subregion reported that as part of the UNCCD process, useful consultations have been taking place in the context of multilateral projects on the Aral and Caspian seas. One Party will convene a UNCCD round-table meeting in the third quarter of 2000.

49. Many Parties acknowledge and appreciate the financial and technical support provided by international partners for activities related to the implementation of the environment, forestry, agriculture, soil and water management, and the rehabilitation of degraded lands. Some Parties have received international support for their NAP process; for others, such partnership arrangements are beginning to emerge. The bodies and organizations of the United Nations system (UNCCD, UNDP/UNSO, UNEP, ESCAP, ESCWA), United Nations specialized agencies (FAO, International Fund for Agricultural Development (IFAD), the World Bank), and multilateral and regional organizations

(European Union (EU), the Global Environment Facility (GEF), IUCN, JICA, OXFAM, Asian Development Bank, Islamic Development Bank), and some donor countries, such as Australia, Canada, Denmark, Finland, France, Germany, Japan, Netherlands, Norway, Republic of Korea, Sweden, Switzerland, United Kingdom of Great Britain and Northern Ireland and United States of America, have been mentioned in one or more reports as having provided financial and technical assistance in various areas related to the environment and land degradation/desertification. Most Parties appealed for further international support or for support that is more specifically targeted at the UNCCD process.

50. Several Parties reported that they have used their own resources to prepare and to implement the NAP, as they did not receive any significant support and active participation of international agencies. One Party commented that in general the degree of support and the participation of the international organizations and developed countries in the preparation of NAPs in the context of the Convention remains low. It is envisioned in most reports, explicitly or implicitly, that the next phases of the UNCCD process will certainly require more financial and technical support by international organizations and developed country Parties. Indeed, many Parties appeal for international support in the form of new and additional funding, as well as mobilizing and channelling the existing resources to support the most affected regions and countries.

51. One interesting trend is the partnerships formed not only between developing and developed country Parties, but also between the developing country Parties themselves, as reflected by a number of joint projects and programmes that are mutually beneficial. This shows that much expertise and experience can be shared between developing country Parties, and the potential for this sort of partnership should be further and fully explored.

52. Some Parties reported the organization of meetings with donor countries. In addition, regional and international seminars and symposiums on desertification and land degradation were organized by many Parties, and supported and attended by international partners with a view to sharing experiences and mobilizing external resources. However, it is not clear that follow-up steps are being taken to secure continuity and concrete results.

53. Many Parties indicated that after the NAP is finalized, appropriate programmes identified and prioritized, consultation with multilateral and bilateral agencies and international donors would commence for mobilization of the much-needed resources to tackle the problem areas. Many Parties have formulated project proposals for financial and technical support.

54. In Central Asia, in the absence of a formally established mechanism for consultations between partners at the national or local levels, activities of the country offices of the United Nations Development Programme are perceived as particularly important with regard to convening regular donor meetings and facilitating contacts between the NCB/NFP and the international partners. One Party in Central Asia notes the role of UNDP in involving non-governmental organizations, local people and relevant authorities in the UNCCD process. In the same subregion, the catalytic role of the UNCCD secretariat was also recognized.

E. Measures taken or planned within the framework of the national action programme, including measures to improve the economic environment, to conserve natural resources, to improve institutional organizations, to improve knowledge of desertification and to monitor and assess the effects of drought

55. For those Parties that followed the reporting Guidelines and the Help Guide, the coverage of this section varies considerably. Some provided adequate

information, while others provided only limited information. Several others discussed mainly ongoing programmes and projects, indicating a diverse understanding of the sub-heading. It should be noted that information given under this sub-heading has also been included in other sections of the reports.

56. Within the framework of the national action plans or programmes, all reporting Parties are taking measures or planning to take measures to conserve natural resources (see paragraph 27), to improve institutional organizations (see paragraph 31), knowledge of desertification and the capacity to monitor and assess the effects of drought. Most importantly, all of them strive to improve the economic environment by adopting Agenda 21 and promoting sustainable development so as to provide a better living standard and environment for their people (see paragraph 26). Poverty alleviation remains one of the major social goals of the reporting Parties.

57. Regarding diagnosis and evaluation of past experiences, some Parties briefly reviewed their past programmes, as well as the causes and trends on desertification and land degradation, so as to draw some lessons for the current action programmes. Several Parties reported the existence of a mechanism for a regular evaluation of on-going programmes in order to improve their content and implementation.

58. Some Parties highlighted the importance of traditional or indigenous knowledge, practices and technologies that have proved to be useful to the local people. These include crop production, mixed farming, water harvesting, conservation of forage, a combined production system, biodiversity conservation, forestry and domestic energy. These Parties have adopted measures to protect and promote traditional or indigenous knowledge, practices and technologies.

59. Most Parties in Central Asia are critical of the pre-independence period, which was generally characterized by inadequate attention to the protection of the environment and by over-exploitation of land and water resources without due regard to ecological consequences, such as desertification and other forms of land degradation. However, two Parties in the subregion mentioned the establishment of well-known scientific and applied desert research in the former Soviet Central Asian republics. One Party noted that the problems experienced in the past in desertification control had been dealt with in a series of books written and published in the post-independence period in English, Russian and the local language.

60. With respect to the establishment of technical programmes and integrated projects to combat desertification, some Parties proposed plans of action, while many confined themselves to providing a long list of short-, medium- and long-term projects in different sectors, such as an inventory of projects that embody UNCCD principles and that are being or should be integrated into the NAP process. In this context it should be noted that many reporting Parties do not distinguish clearly between the projects that have already been formulated and those that are still under discussion.

61. One Party reported the nation-wide inventory and mapping of desertified land. This information systematically revealed the desertified land area, distribution and causes, and analysed the desertification expansion trend. Since 1999, being aware of the dynamic status of desertification, this Party has undertaken the nation-wide monitoring of desertification with thousands of sampling plots aimed at the collection and dissemination of information, so as to provide a scientific basis for better decision-making.

62. On effective measures for local capacity-building, many parties reported that despite governmental efforts, a lot remains to be done in terms of capacity-building, particularly at the grass-root level, for the efficient implementation of NAPs. Some Parties aim to strengthen existing research institutions. Capacity-building at various levels, including training, is a

time-consuming process and it should be given high priority. This is an area where external assistance would be required.

63. Some Parties highlighted the constraints in the decentralization process, which include limited capacities and financial resources at the provincial and district levels for undertaking relevant activities at the local levels.

64. One Party pointed out that a large volume of previous quality work has been ignored, and suggested that political will needs to be strengthened to take concrete action. The same Party cited the lack of interdepartmental coordination as a major obstacle to conservation.

65. On other issues mentioned under this sub-heading, the information provided in the reports is rather sketchy and does not allow a common trend to be established.

F. Financial allocations from national budgets in support of implementation as well as financial assistance and technical cooperation received and needed, identifying and prioritizing requirements

66. Most reporting Parties provided information on financial sources for activities related to drought, desertification and land degradation. Funds usually come from allocations from national budgets. Some supplemented the available funds by contributions from state or provincial and local governments, dedicated sectoral funds as well as international assistance. However, it is clear that financial resources for combating desertification have not been adequate, from either internal or external sources. Several Parties expressed the wish that the Global Mechanism of UNCCD would facilitate the provision of substantial financial support to member States for implementation of the Convention. Many Parties have not contacted the Global Mechanism for financial support. Several reporting Parties recognized the potential role of the private sector.

67. Most Parties reported that the bulk of resources for the NAP process is or is being provided by Governments. Many acknowledged the assistance provided by the UNCCD secretariat in organizing national seminars for formulating NAPs. However, many recognized that due to their limited resources and the magnitude of the problem, the successful implementation of their NAPs will depend, to a large extent, on international support. Thus, they urge donors to increase funding in order to enable them to complete the development and implementation of the initial stage of their NAPs. In particular, financial and technical assistance on human, institutional and technical capacity-building are critically needed. Despite financial constraint, most Parties are prepared to share their experiences with other countries by, among other things, organizing training courses for experts from affected countries, developing and implementing joint projects and study tours.

68. The Central Asian Parties indicated that due to the change of political system and the orientation towards market economies, the previous centralized state management of land use has been weakened, while the close economic interrelations among former Soviet republics have been greatly disrupted, which has led to a sharp decline of their economic potential. As a result, ability to fund many economic projects, including those on combating desertification and drought consequences, is limited. They called for further international assistance.

69. Some Parties mentioned the support provided by multilateral, bilateral and international agencies. It is interesting to note that some Parties also reported the technical assistance received from other developing country Parties. Indeed, many reporting Parties have joint projects with other developing countries.

70. One Party in East Asia mentioned the establishment of a system within the national legislative framework to collect fees for the use of natural resources to fund activities to combat desertification. Some Parties mentioned the establishment of an environmental protection fund or environmental trust fund to be used for activities to combat desertification. One Party in Central Asia also mentioned the establishment of a specific National Fund to Combat Desertification. However, this Party stated further that without financial support by donors, both international organizations and developed country Parties, the fund can not become operational. Another Party in South Asia mentioned that a task force has been created by the government to prepare the design and modalities of a national desertification fund. Some reporting Parties have established well-defined financial mechanisms and project funding procedures for relevant stakeholders, such as NGOs, community-based organizations (CBOs) and local communities to prepare project proposals within the NAP framework for funding.

71. One Party in Central Asia reported that in view of serious economic difficulties and indebtedness, its capacity for incurring more loans for environment protection is limited. The same Party is critical of the conditions for some ecological loans, particularly as regards "tied" loans which, according to the report, have a negative impact on unfolding national capacities to protect the environment.

72. One Party recognized that the benefits of investment in environmental projects for combating desertification and conservation of natural resources are, in most cases, indirect and sometimes it is difficult to assess their monetary value. In many cases the benefits accrue after a long period. The investment in activities identified in NAP should, therefore, be visualized in terms of their indirect and direct benefits to the society and to the nation. It is also difficult to assess the spillover of the beneficial effects of the investment in one sector/area over other sectors/areas of natural resources management.

G. Review of the benchmarks and indicators utilized to measure progress, and an assessment thereof

73. Decision 11/COP.3 urges Parties to initiate testing impact indicators proposed by the ad hoc panel and to encourage the use of these indicators as well as the use of numerical indicators enabling comparison of status on desertification and implementation, in national reporting to the Conference of the Parties at its fourth session. However, no specific information is provided by the reporting Parties on the implementation of this decision.

74. Some Parties, however, indicated that they have developed, or are in the process of developing various physical, biological and socio-economic benchmarks and indicators to assess the impact of desertification and land degradation. Many used the impact indicators proposed by the ad hoc panel as a guide to develop their basic national impact indicators. One Party in Central Asia intends to develop a special set of very simple indicators that could be easily understood and applied by persons without specialized knowledge.

75. Many reporting Parties have established national monitoring, observation and information systems to appraise the status and trend of desertification. Apart from a network of ground observation stations, many also obtained images obtained from satellites to monitor desertification. It is noted that the satellites are equipped with instruments for surveying in the visible, infrared and microwave ranges of the spectrum, which makes the information obtained particularly varied and valuable. Some reported on an operational mechanism for monitoring and assessing the environment, including environmental impact

auditing, not only at the national level, but also at the provincial and local levels. However, some admitted that such a mechanism has yet to be established due to the lack of financial resources and the lack of or limited capacity.

76. Selected indicators should have baseline data to indicate the benchmark, so that it can be used to measure change for evaluating future trends. Baseline monitoring of desertification and land degradation, however, is a difficult and complex task. A sufficient number of monitoring stations are needed to provide adequate spatial coverage of the vulnerable areas, while remote sensing imagery with proper ground truthing is useful for assessing plant cover and biomass. A multidisciplinary team of experts from various government and non-governmental organizations is also needed. Many reporting Parties have yet to build up such technical capacity.

77. Some Parties reported that they have developed a meteorological and environmental information database. For example, one Party in Central Asia reported that its new database, with an information-reference system contains data on various aspects related to desertification, including topographic and subject maps, aerial and space images, analysis and estimation of desertification processes, criteria and indices of current state and tendencies in desertification development, world experience in desertification control, international cooperation and partnership as well as relevant bibliography. This database has been used by the specialists of the Institute to develop monitoring techniques and guidelines for plotting desertification maps. However, many also indicated that they have yet to establish an effective information database system. Some indicated that the capacity for harmonizing existing information systems in related fields is also very limited.

78. Many reporting Parties recognized the importance of subregional and regional cooperation in the areas of monitoring and assessment of the environment (including desertification), and sharing experiences and information. Once again, this highlights the importance of technical assistance shared between developing country Parties.

IV. LESSONS LEARNED FROM NATIONAL REPORTS

A. The National Action Programme formulation and implementation process

79. As already mentioned in paragraph 32, the majority (approximately 69 per cent) of the reporting Parties have already formulated or are in the process of formulating NAPs for combating desertification, including the review of existing frameworks. Many Parties recognized the shortcomings of the past programmes related to natural resource management, which include: (a) absence of integrated approach; (b) lack of inter-departmental coordination; (c) lack of public awareness and public participation in design, formulation and implementation; (d) lack of people's empowerment; (e) neglect of traditional or indigenous knowledge, knowhow, practices and technologies; and (f) lack of political will to confront the root causes of the problem. These Parties have taken or are taking steps to overcome these weaknesses, so that the NAPs are reflecting the principles of UNCCD and also the consensus of all stakeholders in the countries.

80. Many reporting Parties also recognized the complementarity between NAPs and national development plans related to the major areas of natural resources, particularly national environmental action plans and national conservation strategies, which are the framework for overall natural resource management. In order to maximize complementarity and to ensure the effective use of limited resources, it seems that it would be appropriate for the UNCCD process to identify and analyse the gaps and the added value of the NAP new programming initiatives.

81. Some Parties reported that various sector and cross-sector projects and programmes related to environmental protection, including desertification control, are serviced by different ministries. Effective interministerial coordination for the implementation of NAPs will be important to ensure the cost-effectiveness of these projects and programmes. This would also be facilitated through partnership arrangements with developed country Parties targeted specifically at the NAP process.

82. Almost all reporting Parties have mentioned or identified their financial, technical and technological needs in the implementation of the Convention. In particular, capacity-building is probably one of the most immediate needs for most of the reporting Parties. The specific needs and priorities for capacity-building can be summarized as follows:

(a) Establishment or strengthening of institutional frameworks for combating desertification and preventing land degradation, including existing academic, scientific, technical and research institutions, non-governmental organizations, and CBOs; the role of NCBs and NFPs, as well as an appropriate mechanism for effective coordination of national, subregional, regional and international activities;

(b) Consolidation and updating of environmental and resource management policies and legislation including the promotion of sustainable use of natural resources, traditional and indigenous knowledge, know-how, practices and technologies;

(c) Enhancing the human, institutional and technical capacities (including training and exchange programmes) monitoring (including baseline monitoring); assessment of degraded lands and of the aridity and desertification process; data collection, analysis, management, reporting and dissemination; upgrading of research and observation technologies (hardware and software), including enhancement of national meteorological, climatological and hydrological capabilities in weather forecasting and drought early warning systems; remote sensing and the Geographical Information System (GIS); studies of linkages between desertification and climate change; formulation and implementation of environmental legal or regulatory and economic instruments; planning, especially land-use planning; and project implementation and assessment;

(d) Development of effective databases and informational systems related to drought, land degradation and desertification; and establishment of national or regional clearinghouses for information sharing and networking;

(e) Preparation of emergency integrated plans to address the effects of drought and other natural or human-induced disasters, including forest fires; and improving the status of food security;

(f) Strengthening national, subregional and regional scientific, technical and technological research capabilities; promoting regional and international cooperation in terms of academic and professional exchange programmes between Parties (between developing and developed country Parties as well as between developing country Parties), so as to share experiences and lessons learned;

(g) Creating an enabling environment to promote the transfer, acquisition, adaptation and development of appropriate technologies for combating desertification and preventing land degradation;

(h) Raising public awareness, especially the development of programmes, including relevant outreach materials on all aspects related to land degradation and desertification; and the means for their dissemination.

83. There is a great need to periodically consult with international partners at country level, to enter into partnership arrangements and to review the progress of NAP so as to identify constraints and shortcomings during the implementation process. Monitoring and evaluation of activities implemented within the NAP framework may be undertaken following a logical framework or its equivalent, which may be developed among the Parties.

84. In order to enhance local participation in NAP, one Party has institutionalized the benefit-sharing mechanism in forest, park and irrigation water management to provide incentives for the participation of community user groups. This is a good practice that may be of interest to other Parties.

B. The national reporting process

85. The reporting Guidelines and the Help Guide have provided a common format and basis for the preparation of national reports by the Asian country Parties (annex II). They have facilitated the identification of common features in the implementation of the Convention by these Parties. In general, compliance with the reporting Guidelines and the Help Guide has been satisfactory; however, a number of Parties did not follow the Guidelines or the Help Guide. This could be due to one or more of the following reasons: (a) the Parties are not in a position to report the information as required by the Guidelines and as suggested by the Help Guide (e.g. lack of information due to the lack of activities); (b) lack of coordination in information sharing; (c) NFP was not then sufficiently exposed to the UNCCD process; and (d) the Parties did not have sufficient resources or capacity to comply.

86. For those Parties that followed the reporting Guidelines, the coverage under each sub-heading or element varied in scope and depth, probably due to the availability of information. Some ignored certain sub-headings or elaborations suggested by the Help Guide. This could be due to a lack of information. There is also evidence that some Parties were trying to streamline the Guidelines, which have some overlapping elements in the sub-headings.

87. Apart from the financial and technical constraints, very few Parties have specifically reported on the problems and difficulties they encountered during the formulation, implementation and reporting of their NAPs. Perhaps it would be useful to further adjust reporting to facilitate assessment and to better identify the problems and difficulties encountered, so that specific or common solutions may be found.

88. Feedback by the Parties on the reporting format would be necessary to facilitate a revision of the Help Guide format with a view to (a) improving the reporting process, including the analytical content of the national reports; and (b) communicating information as called for by article 26.

V. CONCLUSIONS

89. A total of 32 national reports from the Asian region were synthesized. Based on this synthesis, it can be concluded that:

(a) All reporting Parties from the Asia region are committed to combating desertification and preventing land degradation, as reflected by the fact that all have formulated or are in the process of formulating policies, and establishing or strengthening existing institutions, for the implementation of UNCCD. Approximately 69 per cent of them have formulated or are in the process of formulating NAPs, while 22 per cent have not yet started the process, but indicate that they have the full intention to do so. In addition, 69 per cent have established NCBs, while 22 per cent are in the process of doing so. Approximately 9 per cent of the Parties did not provide any information on the formulation of NAPs or the establishment of NCBs. Indeed, with or without NAPs, most of the reporting Parties in the various subregions have a long history of

combating desertification that dates back well before the advent of UNCCD. However, the UNCCD process has certainly helped to focus or to renew focus, momentum and a new approach to the issue;

(b) Some reporting Parties have yet to formulate NAPs due to the lack of, or limited, financial resources and capacity. They indicated the need to develop partnerships with regional and international agencies, and donor countries, so as to enhance the momentum of facilitating the formulation and also the implementation of NAPs. Several Parties expected the Global Mechanism to facilitate the provision of substantial financial support to member States for the implementation of the Convention;

(c) Most reporting Parties have allocated some resources for the implementation of the Convention, though these resources are inadequate. Many donor countries provided financial and technical assistance for natural resources management. In most cases, however, this input is not or not yet related to the NAP process and thus the added value that is expected from the Convention in the fight against desertification, in terms of enhanced coordination, integration of cross-sectoral measures and participatory approach, cannot be sufficiently demonstrated at this stage. More focused assistance from international agencies and donor countries would be crucial in ensuring the success of the implementation of the Convention;

(d) Poverty is both a cause and a consequence of environmental degradation, including desertification and land degradation. Most reporting Parties recognized the relevance of UNCCD to poverty alleviation. Hence it would be appropriate for the NAP process to be given accrued importance in national efforts for poverty alleviation;

(e) Almost all reporting Parties have, in one way or another, expressed their needs, some critically, for financial, technical and technological support in implementing the Convention, including their NAPs. Specific needs and priorities for institutional, human, technical, technological and informational capacity-building have also been identified, as reflected in paragraph 81, above. These needs seem to be common to developing country Parties from all regions. In this respect, it is encouraging to note that developing country Parties themselves are also supporting each other in terms of technical assistance and collaboration;

(f) There is a growing recognition among many reporting Parties that desertification and land degradation contribute to the loss of biodiversity, while climate change could exacerbate land degradation and desertification, which, in turn, would further compound climate change by the loss of carbon sinks and reservoirs. Thus, the potential linkages of UNCCD with CBD and UNFCCC should be fully explored so as to maximize synergy.

VI. RECOMMENDATIONS

90. The Conference of the Parties is invited:

(a) To review the first national reports submitted by Asian Parties and to encourage those Parties that have not yet done so to submit their reports as soon as they are in a position to do so;

(b) To consider the contents of those reports and the financial, technical, technological and capacity-building needs expressed by the Asian developing country Parties, and to take the necessary action and measures to address them, so as to enable those Parties to participate effectively in the implementation of the Convention;

(c) To provide guidance on an appropriate mechanism for the review of the implementation process, which would require, *inter alia*, feedback from all Parties, so as to improve national reporting as well as the communication of information process, as called for by the Convention in article 26.

PART TWO: PROGRESS MADE IN THE FORMULATION AND IMPLEMENTATION OF THE SUBREGIONAL AND REGIONAL ACTION PROGRAMMES IN ASIA

I. SUMMARY OF REPORTS ON THE PROCESSES RELATING TO THE SUBREGIONAL AND REGIONAL ACTION PROGRAMMES

91. A review of the national reports that relate to the progress of the subregional and regional action programmes for Asia elicits the following observations:

(a) Subregional action programmes (SRAPs): The SRAP processes in the two Asian subregions are progressing cautiously. This pace is understandable in view of a host of difficulties relating to the mechanism by which the subprogrammes are supposed to be thrashed out. Although interest for cooperation and collaboration from the country Parties in the subregions are comparatively high, a more decisive level of support from international and intergovernmental institutions is needed to assist the subregions in developing a feasible collaborative arrangement. There are inherent inadequacies common in most, if not all, of the countries in the subregions, such as the weak capacity of institutions and absence of an effective machinery for monitoring and evaluating progress, which have been major stumbling blocks in pushing for a coherent subregional action programme. Part of the agenda, therefore, to speed up the process is a programme for capacity-building that should be designed along and within the Asian wide thematic programme areas identified in the region. The progress of the RAPs particularly of the thematic programme networks (TPNs) can be used to speed up the SRAP process up-to-speed, especially once the networks are formalized;

(b) Funding remains a significant problem. Although certain resources can be mobilized for some institutions to support activities identified in SRAP, in general these cannot be sufficient to cover all the priority activities. At this point, while a number of member countries in the subregions are doing their best to source funds, there appears to be a need for a mechanism that will prioritize the activities of SRAPs. The continuing support extended by the secretariat in catalysing various efforts in the subregions may have to be maintained until such time that the regional institutions, intergovernmental organizations and member countries of SRAP have formulated a workable mechanism that can put SRAP into full operation;

(c) The regional action programme (RAP): The Asia RAP process, which was conducted in accordance with the provisions of the Convention, has evolved and progressed satisfactorily. Since the holding of the first regional conference at New Delhi in 1996, member countries have actively participated in the preparatory work to launch the three Thematic Programme Networks for the region, namely: Monitoring and Assessment (TPN1), Agroforestry and Soil Conservation (TPN2), and Range Management and Sand Dune Fixation (TPN3). These efforts, while still leaving room for improvement, are indicative of the sincere desire of many member countries to develop RAP promptly. As with the African region, there is concern for maintaining the pace of RAP compatible with the level of progress in the national (NAP) and subregional (SRAP) action programmes so that the three processes could provide mutually beneficial feedback and linkages;

(d) The launching of the first two Thematic Programme Networks spearheaded by the host country focal points was a milestone in the region. The

launching reflected the common interest of countries in the region to formulate a coherent approach to combating desertification. Through the identified programme areas, TPNs focused efforts to key problem issues and offered an approach that avoided duplication. In many ways TPNs have made countries realize the potential of collaboration and at the same time highlighted the importance of maximizing meagre resources to attain the set objectives.

92. Other clear lessons that can be concluded from the experience in the region included the following:

(a) Efforts must be undertaken at an early stage to operationalize networking. This is reflected in the operational guidelines agreed upon by the member countries in the course of defining the specific priority actions TPNs will focus on;

(b) The region has a wealth of experience that has been scientifically and technically recorded. There is a strong desire to share information that has been generated and this could be the reason for the high interest in making the networks operational. From a network's operational standpoint, the present information offers good building blocks for enhancing and strengthening the collaboration already initiated;

(c) In the light of the level of effort exerted by countries to make the networks functional, there is a notable increase of interest among bilateral, regional and multilateral bodies to support the on-going process. The real test of support can only be measured by the flow of resources made to implement the various activities identified by the networks.

II. PROGRESS REPORT ON THE SUBREGIONAL ACTION PROGRAMMES

A. West Asia

93. The West Asian subregion has been involved since 1995 in enhancing intergovernmental cooperation and drawing up a subregional action programme to combat desertification (SRAP) pursuant to the Convention, Annex II, article 5. SRAP evolved through a consensus building process and provided a good opportunity to collectively recognize the relevance of UNCCD for the countries of the subregion. The secretariat responded to the demand for an SRAP in West Asia by assisting in and facilitating the organization of preparatory meetings. These meetings, initiated by an awareness-raising forum in Bahrain, were followed by consultations on programme matters that took place at Abu Dhabi, United Arab Emirates, at Damascus, Syrian Arab Republic, and at Muscat, Sultanate of Oman. This process was further supported by the Gulf Cooperation Council, the Islamic Development Bank and the Regional Office for Western Asia of the United Nations Environment Programme (UNEP).

94. As a result of those meetings, the Parties of the region reached some pertinent conclusions and recommendations, i.e. the decision on the establishment of three thematic programme networks that constituted the main areas of core activities within the programme. The three thematic programme networks focused on: (a) information and monitoring;(b) drought preparedness; and (c) strategic studies, research and training needs. Subregional institutions, such as the Centre for Environment and Development for the Arab Region and Europe (CEDARE), the International Center for Agricultural Research in the Dry Areas (ICARDA), and the Arab Center for the Studies of Arid Zones and Dry Lands (ACSAD), were identified. These institutions were given the task of preparing background documents and concrete project proposals ready for implementation, which were presented to and discussed by the group during the Muscat meeting.

95. After the Global Mechanism became operational, the secretariat took the necessary steps to associate it into the process of SRAP. The Global Mechanism,

within its mandate to promote action leading to the mobilization and channelling of substantial financial resources for the implementation of the Convention, has taken initiatives to further implement the SRAP programme in West Asia. Consequently it is expected that a more comprehensive report on recent activities undertaken under the SRAP for Western Asia will be provided by the Global Mechanism in its separate report to COP 4.

96. The secretariat has remained closely involved in the SRAP process by participating in the consultations liaising with involved subregional organizations. A working meeting was convened by the Global Mechanism from 24 to 26 October 1999, at Cairo, Egypt, which discussed the reformulation of SRAP based on the findings of two consultants. The main thrust of the reformulation was the redefinition of activities to be implemented by SRAP and the orientation of the outcome of the Muscat meeting towards the establishment of a regional coordination unit (RCU) charged with operations and logistics. Furthermore, the secretariat participated in the Abu Dubai meeting, held on 16 February 2000, which sought the approval and subsequent endorsement of the reformulated framework by country Parties of the SRAP. Country Parties are currently in the process of deciding on the location of RCU to be established under that initiative.

97. In order to maintain the momentum of the SRAP initiative, the secretariat has discussed options for start-up activities including the possibility of establishing inventories for SRAP related activities with ICARDA, ACSAD and the Global Mechanism.

B. Central Asia

98. The need for transboundary cooperation in Central Asia was fully recognized by the countries of the subregion. After adoption of the Convention in 1994, 12 newly independent countries of the former Union of Soviet Socialist Republics (USSR), including 5 Central Asian States, organized an Interregional Conference on the implementation of the UNCCD in June 1997 at Tashkent, Uzbekistan.

99. The Conference expressed concern over the impact of desertification, drought and land degradation in affected countries in Central Asia, Eastern Europe and the Transcaucasus. It acknowledged that desertification and drought were problems of a transboundary nature and that joint action of the countries concerned was needed to combat desertification and drought. Consequently, the Conference endorsed the need for the preparation of an Interregional Action Programme (IRAP) to combat desertification.

100. The Conference agreed that the following areas could become priority elements of the IRAP:

(a) Improvement of management tools for economic development and environmental protection;

(b) Awareness raising and ecological education, including the promotion of information systems;

(c) Assessment, monitoring and early warning systems (EWS) for combating desertification and mitigating the impact of drought;

(d) Use of transboundary water resources and monitoring of their usage at interstate levels;

(e) Use and rehabilitation of pastures;

(f) Rehabilitation of forests;

(g) Rehabilitation of natural resources and cultural heritage including mechanisms to combat erosion by wind and water, to preserve biodiversity and restore indigenous knowledge systems;

(h) Combating environmental degradation and improvement of public health;

(i) Rehabilitation of lands degraded by wars, industrial activities and nuclear wastes;

(j) Energy;

(k) Desertification induced migration and its socio economic impact.

101. However, due to the fact that the process of accession to the Convention by some countries of Eastern Europe had been delayed, the preparation of the IRAP was postponed. Nevertheless the consultative process initiated provided a broad forum in which affected country Parties reviewed their common interests. It is in this context that, by the time all five Central Asian States (Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan) became Parties to the Convention, conditions had been created for developing cooperation at the subregional level.

102. Further to requests from those countries and pursuant to the Convention, (Annex II, article 5), the UNCCD secretariat began, in April 2000, the process of preparing a subregional action programme to combat desertification in the Aral Sea Basin. The Ministerial Meeting on SRAP preparation was scheduled for 18-21 July 2000 at Bishkek, Kyrgyzstan. The SRAP Framework Document that was prepared for consideration at that meeting contained a review of the value added by subregional cooperation, proposed elements of SRAP and a programme of work for its implementation, leading to subregional projects and joint action. Elements of SRAP included, *inter alia*:

(a) Monitoring and assessing the desertification process;

(b) Improving the use of water in agriculture and combating salt desertification;

(c) Agroforestry management on the plains and in the mountains;

(d) Developing rangeland management;

(e) Conserving biodiversity and protecting nature (ecotourism);

(f) Promoting community-based natural resources management;

(g) Developing and introducing an environmental impact assessment system;

(h) Scientific cooperation in the subregion.

103. It was expected that the meeting would generate the appropriate conditions to allow Central Asian States to identify priority areas, action and projects for subregional cooperation, and agree on the further steps needed to prepare SRAP. In particular, it was proposed that after the first meeting, during an initial stage of the SRAP preparation, concrete initiatives should be elaborated within the agreed-of areas of SRAP. At the second meeting to be convened at the beginning of 2001, the Parties could start the preparation of subregional projects. It was expected that the second stage of the SRAP preparation would last from 12 to 15 months. By the end of this period a complete SRAP document would be prepared and a subregional conference could be convened with the participation of decision makers in subregional cooperation.

III. PROGRESS REPORT ON THE REGIONAL ACTION PROGRAMME

104. The resolutions adopted during the first Regional Conference on the Implementation of the United Nations Convention to Combat Desertification, held at New Delhi, August 1996, prepared the ground for the preparation of the Convention's regional action programme for Asia. Guided by the principles and provisions of the Convention, especially those in its Annex II, the Regional Implementation Annex for Asia, Asian country Parties, with continued assistance from the UNCCD secretariat, have taken initiatives aimed at achieving the objectives of the Convention. The major supporters of the process have been Germany, Japan, IFAD and, more recently, the Global Mechanism. As a follow-up to the New Delhi meeting, two other important meetings were held: the Ministerial Conference on Regional Cooperation to Implement the United Nations Convention to Combat Desertification in Asia, held in Beijing in 1997, and the International Expert Group Meeting on the Preparation of the Regional Action Programme for Combating Desertification and Mitigating the Effects of Drought in Asia, held at Bangkok in 1998. Those meetings carried the Asian region through a process of mobilizing political commitment to regional and subregional collaboration. They also paved the way for the formulation of a framework for the Regional Action Programme (RAP) and the development of national action programmes (NAPs). Furthermore, the meetings established thematic programme networks (TPNs) that provide structural support to RAP and NAPs which, essentially, are at the core of action for combating desertification in the region.

A. The areas of cooperation and measures taken or planned

105. Principally, the 1997 Beijing Meeting provided the overall definition of the priority areas of the RAP elements by identifying the following thematic programme areas as priority for regional cooperation and collaboration in the Asian effort to combat desertification:

(a) Desertification Monitoring and assessment;

(b) Agroforestry and soil conservation in arid, semi-arid and dry sub-humid areas;

(c) Rangeland management in arid areas including the fixation of shifting sand dunes;

(d) Water-resources management for agriculture in arid, semi-arid and dry sub-humid areas;

(e) Strengthening capacities for drought impact management and desertification control; and

(f) Assistance for the implementation of integrated local area development programme initiatives.

106. In developing the specific programme activities under the identified thematic programme areas, considerations would be paid to the following cross-cutting elements identified by the 1996 New Delhi Meeting:

(a) Science, technology and technical cooperation;

(b) Public participation and consensus building;

(c) Education curricula promotion and awareness raising;

(d) Information and assessment;

(e) Capacity and institution building;

(f) Research on the enabling macro-policy framework; and

(g) Regional cooperation and land degradation across different climatic subregions.

107. The 1998 Bangkok Meeting, among others, firmed up the framework for institutional arrangements that would put into operation the thematic programme networks of the RAP identified during the Beijing meeting. Accordingly, RAP in Asia will commence when the Desertification Monitoring and Assessment Network (TPN1) to be hosted by China; the Agroforestry and Soil Conservation in Arid, Semi-arid and Dry Sub-humid Areas Network (TPN2) to be hosted by India; and the Rangeland Management in Arid Areas including the Fixation of Shifting Sand Dunes Network (TPN3) to be hosted by Iran (Islamic Republic of) are launched. The Meeting also agreed on the management arrangements that would back-up the implementation of the Asian RAP process through the Regional Coordination Unit (RCU). RCU, which is the UNCCD secretariat's unit in the region, is to be housed in the Economic and Social Commission for Asia and the Pacific (ESCAP).

B. The consultative and preparatory process in support of the implementation of the programme and partnership agreements

108. For the period under consideration, a variety of activities undertaken at the local and national levels were reported such as awareness seminars, awareness raising campaigns, formulation and implementation of capacity building/field projects. The view was reiterated that strengthening national and international partnership to support the implementation of the Convention is essential to bring the process forward. As a follow-up to the Bangkok Meeting, the following consultation meetings were held in the region.

1. First Asian Meeting of the UNCCD National Focal Points, held in Ohtsu, Shiga, 26-28 May 1998

109. The First Asian Meeting of the UNCCD National Focal Points from selected Asian countries was held at Ohtsu, Shiga, Japan, from 26 to 28 May 1998. Its conclusions were submitted to the Bangkok Meeting, and they are summarized as follows:

(a) The assessment and monitoring of land degradation and desertification in Asia must receive priority attention during the International Expert Group to be convened at Bangkok and must be strengthened under the Convention by closer interactions between measures taken at the national and regional levels. A synthesis of successful experiments on combating desertification should be prepared;

(b) The enabling policy framework for the successful implementation of the Convention must cover a wide-ranging set of legislative instruments including those dealing with macro-economic policies, indebtedness and trading. Consequently the matter of combating land degradation, desertification and drought must be more systematically integrated in the work programme of the institutions concerned with these matters, which are invited to cooperate with the secretariat;

(c) Capacity-building support and institutional strengthening are required to foster institution building, integrated programming, development of a national supportive network, local areas initiatives and ongoing training courses in the sustainable use of land and water resources, while taking into account lessons drawn from experience;

(d) The secretariat is called upon to assist in awareness raising, capacity-building and the consultative process at various levels;

(e) NGOs should be given prime responsibility in empowering local populations to participate in programmes aimed at implementing the Convention while the secretariat should assist such organizations to raise funds for the conducting of related consultative processes. Encouragement of genuine bottom-up initiatives is critical;

(f) The mobilization of domestic and foreign financial resources in response to the efforts of National Focal Points must be an essential element for the implementation of the Convention at the national level, especially during its initial phase. Efforts must be intensified to facilitate partnership arrangements and a schedule of consultative meetings to this effect should be agreed upon between developed and developing country Parties with the Global Mechanism being urged to facilitate these processes;

(g) Given the challenges of land degradation, desertification and drought in Asia and as the phase of implementation of the Convention increases, competent Asian institutions, such as ESCAP or the Asian Development Bank, should be invited to review their existing commitment. These institutions are also asked to propose options for significantly contributing to the implementation of the Convention in Asia.

110. The holding of the workshop at the regional level was a significant step in fostering a collegial spirit among the Asian focal points and establishing the basis for the on-going process of collaboration in the region.

2. Second Asian Meeting of UNCCD National Focal Points, held in Beijing, 24 and 25 July 1999

111. The Second Asian Meeting of UNCCD National Focal Points was held at the Chinese Academy of Forestry in Beijing from 24 to 25 July 1999 and was supported by the UNCCD secretariat. Forty-five participants attended, including the national focal points of Asian countries; experts and representatives of international, regional and subregional organizations; and NGOs. The key conclusions of the Meeting are summarized as follows:

(a) The country Parties have been striving to mainstream the implementation of the Convention in their national policies to promote sustainable development and environmental protection and such efforts need to be sustained to facilitate implementation of the Convention. Related to this effort, the participants noted that some governments have already established national coordinating bodies for the implementation of UNCCD, such as national councils and steering committees, involving a variety of line ministries, agencies and representatives of other stakeholders. Multi-disciplinary national coordinating bodies were considered useful to promote the implementation of the Convention. The participation of NGOs was also considered an essential element of this process;

(b) A variety of activities undertaken at the local and national levels, such as awareness seminars, awareness-raising seminars and campaigns, formulation and implementation of capacity-building and field projects, were reported. The view was reiterated that strengthening national and international partnerships to support the implementation of the Convention was an essential requirement to bring the process forward;

(c) The Convention, through the mobilization of civil society in the context of NAPs, will prove to be a useful instrument to promote the implementation of the Rio conventions, including the conventions on climate change, biodiversity and sustainable development;

(d) The UNCCD secretariat plays an important role in assisting governments and stakeholders in the implementation of the Convention and it should be supported in order that it can continue doing so;

(e) Noting that the UNCCD secretariat had taken part in a study on land degradation interlinkages entitled "Socio-economic and environmental impacts of combating desertification", the participants called for assistance in assessing the economic implications of desertification.

112. It was deemed important to obtain synergy in addressing desertification issues as a part of the efforts to facilitate and complement the implementation of the Convention. It was suggested that a workshop could be held to deepen a common understanding of similarities and possible linkages between the conventions. GEF support was called for by the Asian group for the programmes developed under the Convention such as the Western Asian Subregional Action Programme and TPN 1, 2 and 3.

113. The second meeting of the UNCCD national focal points worked in a spirit of solidarity to address the UNCCD process in a more collaborative manner. Consensus was reached on the Help Guide for national reports and on more specific areas of collaboration within the region.

3. Asia-Africa Technical Workshop on Early Warning Systems, held in Beijing, 22 and 23 July 1999

114. Regional consultations were linked to the prospects of interregional cooperation. Forty-five experts from Africa, Asia and international, regional and subregional organizations met in Beijing on 22 and 23 July 1999 for the Asia-Africa Technical Workshop on Early Warning Systems to discuss Asia-Africa interregional cooperation in the areas of combating desertification and mitigating the effects of drought. The meeting was a response to a previous call for South-South technical cooperation made during the First and Second Meetings of the Tokyo International Conference on African Development held at Tokyo in October 1993 and October 1998, the First UNCCD Asia-Africa Forum held in Beijing in August 1996 and the Second Asia-Africa Forum held at Niamey, Niger, in September 1997. The meeting was held at the Chinese Academy of Forestry.

115. The participants recognized the potential of interregional cooperation in the following areas: (a) developing more coherent and cost effective data management systems, (b) capacity-building frameworks, and (c) research and development for the sustainability of the early warning system (EWS). The participants also emphasized the experience gained by Asia in desertification monitoring and assessment, and by Africa in early warning forecast for drought emergencies.

116. While welcoming the progress of regional cooperation in the development and management of early warning systems in Africa and in Asia, the participants were mindful of the need to facilitate, under the Convention, a synergistic implementation process of the three conventions on desertification, climate change and biodiversity through further harmonization of EWS.

117. The conclusions of that meeting focused on the areas related to early warning systems, and desertification monitoring and assessment, as follows:

(a) The Committee on Science and Technology, in its review of information on and experience of early warning systems, should propose an integrated perspective on active linkages between the aims expressed in the regional implementation annexes of the Convention as well as foster interregional cooperation in its overall work programme with a view to pursuing mutual and collective benefits;

(b) African country Parties were encouraged to identify an institution or a group of institutions, that could act as African regional focal points for interregional cooperation on early warning system. The focal points would be asked to participate in the establishment of a scheme for promoting

interregional cooperation in order to enhance such systems through standardization of data, capacity-building, training and research;

(c) The host of the Thematic Programme Network on Desertification Monitoring and Assessment (TPN1), in close consultation with interested Asian members of the Network, should liaise with African counterpart institutions. The arrangement is proposed in order to identify opportunities for building up interregional training programmes on EWSs until the proposed Asia-Africa Research Development and Training Centre is established;

(d) Technical and financial assistance should be provided for early warning system in affected country Parties on a predictable and sustainable basis under the partnership arrangements;

(e) The UNCCD secretariat, with the assistance of the Global Mechanism, donor countries, international organizations and other interested entities, was urged to assist South-South cooperation in EWS. This would facilitate the establishment of the proposed Asia-Africa Research Development and Training Centre (RDTC), taking into account existing networks, schemes, organizations and financial sources that can support the proposed training programmes on such systems;

(f) The United Nations Office of the Special Coordinator for Africa and Least Developed Countries should finalize a roster of experts and an inventory of institutions that could promote Asia-Africa interregional cooperation in the areas of combating desertification and mitigating the effects of drought including EWSs in the context of the implementation of the Convention;

(g) United Nations organizations such as the United Nations Environment Programme (UNEP), Food and Agriculture Organization of the United Nations (FAO), World Meteorological Organization (WMO), Economic and Social Commission for Asia and the Pacific (ESCAP), and other subregional and regional organizations, should share with Asian and African focal points, institutes and subregional and regional organizations information and technical expertise on EWSs;

(h) African and Asian focal points for interregional cooperation were invited to raise awareness on the potential and benefits of EWSs for mitigating the effect of drought in the context of global climatic variations affecting both continents, such as El Niño and La Niña, and enhancing their preparedness for such climatic variations;

(i) It was agreed that the UNCCD secretariat would transmit the findings of this meeting to CST for its deliberation at COP 3. The secretariat was also asked to ensure appropriate coverage of EWS at the third session of the Asia-Africa Forum to Combat Desertification with a view of fostering capacity-building and the transfer of technology on early warning systems.

118. This important workshop identified areas of mutual cooperation that would benefit both continents. To concretize the agreements made at this meeting, it is necessary that a follow-up mechanism be devised so as to maintain the momentum generated by this event. Contingent to this condition is the establishment of the respective network in Africa. The Asian and African focal institutions must be fully functional and adequately funded. Future collaborative activities should be explored in order to enhance the interregional cooperation that has been started.

C. The development of Thematic Programme Networks

1. Launching meeting of the Thematic Programme Network on Desertification Monitoring and Assessment

119. The launching meeting of the Thematic Programme Network on Desertification Monitoring and Assessment (TPN1) was held in Beijing, on 26 and 27 July 1999 in collaboration with the Institute of Forest Resources Monitoring Technology of the Chinese Academy of Forestry. The key conclusions of the meeting are summarized as follows:

(a) The network will exist via linkages between among identified national focal institutions that will play a participatory role involving all the key actors operating at national and local levels in the field of desertification monitoring and assessment. The participants decided that TPN1 would be open to interested institutions from concerned developed country Parties and organizations as partners of the network. With China being the Network Task Manager, its national focal institution will play a facilitating role in the functioning of the network in collaboration with the nominated national focal points, international donors and the secretariat of UNCCD. TPN1 would also have to operate in such a way that the activities of the network will be delegated to the member institutions or agencies enjoying comparative advantages and a proven expert record to perform the jobs concerned;

(b) It was recognised that making the network operational would depend on the commitment of the country Parties and on the formulation of a well focused programme of work. As a guide to the formulation of the programme of work for the network, the participants identified the following key elements: (i) developing the framework for the conduct of assessment and monitoring on the status of desertification at regional, subregional and national levels using in combination the various systems of new information technologies and space-based technologies; (ii) supporting national focal points to enhance and improve the linkage of national databases with regional, subregional and international databases applying digital and communication technology; (iii) developing a regional framework for the conduct of joint or collaborative information gathering and database consolidation of scientific information on desertification control, land and water management and biomass protection; (iv) formulating programmes that will promote the use of information generated by space-based technologies and programme development; (v) devising systems for the transfer of information to decision makers and field level end-users; (vi) and developing training and research programmes;

(c) In order to make the networks immediately operational, priority should be given to coordinating and strengthening the capacities of national focal institutions involved in desertification monitoring and assessment, and targeting electronic tools for the actual networking of the participating institutions and partners. This would have to be started immediately after the launching of TPN1. The participants also suggested consideration of an open-ended steering committee of the network with the core membership comprised of the TPN1 task manager, UNCCD secretariat, Global Mechanism as appropriate and any interested partner Agency. The committee could meet during the sessions of the COP, which was proposed to start at COP 4. Related to this, the participants endorsed an operational guideline spelling out the principles and operating procedures of TPN1. Accordingly, the national focal points will confirm their willingness to participate in TPN1 by writing to the host country no later than 30 September 1999;

(d) As a matter of priority for TPN1 in the initial stages of operation, the key activities should include: (i) a survey of desertification monitoring and assessment capacities, constraints and opportunities in Asia; (ii) preparation and publishing of a TPN1 newsletter; (iii) making available relevant scientific information; (iv) launching of an interactive TPN1 Web site

by which all the network members and partners will be able to share information and experiences; and (v) making available a set of maps for the Asian region showing the extent of desertification and paying due attention to efforts made in this field by competent international organizations. It was agreed that these priority activities should be the basis on which the members of the network will be able to take concrete action and achieve measurable results prior to the convening of COP 4;

(e) The launching of TPN1 could provide opportunities for members of the international community to concretize scientific cooperation against desertification and drought. In particular, interested, affected and developed country Parties will be able to work more closely and effectively, within the framework of the regional network, with international, regional and subregional organizations as well as with non-governmental organizations. TPN1 therefore, must contribute to raising the efficiency and impact of the activities undertaken under the other networks of the Regional Action Programme for Asia covering specific areas such as range and sand dune fixation, soil conservation and agro-forestry, and water management. The early warning systems will further improve networking among the country Parties in their common efforts to promote synergistic implementation of the three conventions: United Nations Convention to Combat Desertification, Convention on Climate Change and Convention on Biodiversity.

120. The participants agreed that resources must be mobilized at a scale required for smooth and effective implementation of the various activities and programme areas of the network. Immediate support is needed for the priority actions identified. While the Network Task Manager (NTM) is in charge of the overall coordination of efforts for resource mobilization, member of the national focal institution may wish to assist in mobilizing resources for the specific activities entrusted to them. The international donor community is also urged to play a committed role in providing funding support. The participants agree that it is essential for the regional network as well as the country members to have access to the various technological options necessary for desertification monitoring and assessment. The participants recommended that the Network Task Manager and the secretariat of UNCCD, with the assistance of the Global Mechanism/IFAD, should work with the international donor community for the mobilization of the necessary resources required for the implementation of the programme of the network. They further call on UNEP, FAO, WMO, and subregional organizations to become active partners of TPN1.

121. In support of the regional effort in setting up TPN1, the Government of Japan, on account of its experience and proven exposure in the area of monitoring and assessment, conducted the Workshop on Regional Research Cooperation to Combat Desertification in Asia, at Tokyo, Japan 2 March 1999. The Workshop was intended to make scientists in Japan doing work in the areas of monitoring and assessment aware of the regional network and where they could provide support through scientific exchange or joint collaboration and undertakings.

122. The launching of TPN1 and the upgrading of facilities by the host institution clearly manifested the commitment of the host country to achieving the objectives expressed during the three regional meetings. A consensus framework was reached, supported by the members of the network, that would carry TPN1 to the next working level. The opportunities offered by this momentum should also be taken advantage of by the country Parties to the Convention in the region especially at their current level of effort in preparing their respective. The launching meeting of TPN1 also sent a signal to the other TPNs on the positive aspects of forging collaboration despite limited resources.

123. At the TPN1 Launching Meeting held in Beijing in July 1999, the participants adopted work programmes and operational guidelines to enhance desertification monitoring and assessment and their effectiveness in efforts to

combat desertification and mitigate the effects of drought. A workshop was convened as an immediate follow up to the TPN1 launching meeting. Its purpose was to further flex the agreed TPN1 work programmes and to translate them into a clearer set of actions that will make the network functional at the regional level. The Workshop was organized by China and the UNCCD secretariat, and hosted by Japan with sponsorship from the Environment Agency of Japan and the Global Mechanism. The TPN1 Workshop was held at Tokyo from 28 to 30 June 2000. The Network focal points and a national expert from each Asian country Party participating in TPN1 attended the Workshop. Substantively, the Workshop discussed, among other items: (a) status of desertification monitoring, assessment and studies; (b) use of implementation and impact indicators; (c) achievements made by the use of satellite and remote-sensing technologies and techniques; (d) techniques and achievements of desertification and vegetation mapping; and (e) constraints and challenges for improving desertification monitoring and assessment and their effectiveness. Participants in the Workshop also presented, along with their papers, maps and computer graphic works that show deserted or degraded areas and vegetation coverage in their respective countries. This was significant information input for TPN1 as it laid the foundation for consolidating information received from the country Parties participating in the Network and move towards developing the regional database on the state of desertification in the region.

124. The convening of this Workshop is considered important as it opens the initial phase of making TPN1 operational. Furthermore, the effort illustrates the readiness of the TPN1 focal points to service on a priority basis the information needs of the region. With this as a basis, more support especially from developed country Parties and their scientific institutions would be expected in order to streamline data and information management and reach consensus on benchmarks and standards.

2. Launching Meeting of the Thematic Programme Network on Agroforestry and Soil Conservation

125. The launching meeting of the Thematic Programme Network on Agroforestry and Soil Conservation (TPN2) was held at New Delhi, India, from 14 to 18 March 2000 in collaboration with the Central Arid Zone Research Institute. The highlights of the meeting are as follows:

(a) The participants agree that the overall objective of TPN2 would be to promote agroforestry and soil conservation in arid, semi-arid and dry sub-humid areas in Asia in the context of combating desertification and mitigating the effects of drought through enhancing local, national, subregional, regional and international cooperation, supporting research works and field activities, strengthening the capacities of stakeholders, establishing information networks and harmonizing data base systems with a view to contributing to the overall efforts for promoting sustainable development and preserving the global environment in a comprehensive manner. TPN2 will also promote the exchange of programmes and information sharing among its members;

(b) India's UNCCD focal point, the Ministry of Environment and Forests, and the Indian Council for Agricultural Research (ICAR) as Executing Agency, will play an overall facilitating role for TPN2. The Director of the Central Arid Zone Research Institute (CAZRI), the head of the Indian nodal institutions and the TPN2 Task Manager will facilitate the functioning of the network in collaboration with all the participating UNCCD national focal points and national focal institutions, with the support of international donors and the UNCCD secretariat. In this respect, TPN2 will be structured as a flexible network of institutions or agencies taking part in activities on a voluntary basis. The network will be established and maintained through the electronic computer network systems that connect identified national focal institutions and is to be managed by the TPN2 Task Manager. The network will be extended to the local and national levels under the auspices of national focal institutions in

participating countries. The network will also empower local and national stakeholders to play active roles in a participatory approach in promoting agroforestry and soil conservation activities. The participants also decided that TPN2 would be open to interested institutions from concerned developed country Parties and organizations as partners of the network. The participants agreed on an operational guideline, which sets out the principles and operating procedures of the TPN2. The national focal points will confirm the modalities of their participation in TPN2 by submitting TPN2 questionnaires to the TPN2 Nodal Institute no later than 30 April 2000;

(c) TPN2 would operate in such a way that the activities of the network will be delegated to the member institutions or agencies holding comparative advantages and a proven expert record to perform the jobs concerned. A set of priority activities was recommended for implementation immediately after the launching of TPN2. It was also agreed that in due time the constitution of an appropriate monitoring mechanism for the network would be considered. Progress reports on the programme will be submitted every year;

(d) The six support programme areas (SPA) were endorsed as proposed in the TPN2 framework document namely: network management, information management, technology package development, capacity-building, awareness raising and comparative local area pilot programme. In flexing the said programme areas, consideration would also have to be given to the following key elements: (i) developing the framework for compiling/evaluating the Asian experience on past and ongoing agroforestry and soil conservation activities and assessing their bio-physical and socio-economic, environmental and cultural benefits and impact in the context of combating desertification and mitigating the effects of drought;(ii)developing and strengthening the institutional capacities of all institutions of Member States involved in the TPN2 for the management of a database and information sharing in the area of agroforestry and soil conservation in Asia; (iii) assisting national focal points and national coordinating institutes that participate in the TPN2 so as to increase dynamic interaction between participating members as well as local stakeholders in the respective countries through, for instance, improving database linkages and applying information technologies; training programmes; initiating pilot schemes for synergistic watershed management;(iv) supporting the national focal point of the TPN2 host country and the TPN2 task manager in order to enhance their capacity to facilitate TPN2 programme development; (v) undertaking regional studies on agroforestry and soil conservation activities, exploring prototype activities and developing appropriate models to achieve multiple benefits; (vi)disseminating the expertise and information to be collected under the TPN2 to a wider range of stakeholders and strengthening their capacities for formulating and implementing field projects and research; and (vii) sharing useful traditional knowledge and advanced technology that could assist stakeholders in formulating and implementing agroforestry and soil conservation activities including developing value-added agroforestry products and marketing mechanisms;

(e) The priority activities will include: (i) developing a TPN2 Web site to be managed by the designated nodal institution. The Web site would provide information on TPN2 activities thereby assisting in mobilizing greater support for the network; (ii)conducting regional studies on agroforestry and soil conservation practices to be submitted by experts of participating national coordination institutes focusing on, among others, bio-physical and socio-economic, environmental and cultural impact, case studies, opportunities and constraints, inventories/matrix of useful traditional knowledge and advanced technology packages, information on value-added agroforestry products and marketing mechanisms, experiences in the use of benchmarks and indicators, and publishing scientific findings for wider distribution; (iii) preparing a newsletter which will show periodic update on the TPN2, highlight effective practices and success stories and reflect input from participating institutions on their agroforestry and soil conservation activities in Asia. In order to

ensure the widest possible dissemination, the newsletter will be circulated on the TPN2 Web site; and (d) sharing mobilized expertise and information on agroforestry and soil conservation with local and national stakeholders and strengthening their capacities for formulating and implementing effective agroforestry and soil conservation field activities and research.

126. The view was shared by participants that a training/capacity-building component of the TPN2 would be a crucial element in the proposed activities to support institutions and stakeholders in promoting agroforestry and soil conservation activities. These priority activities will commence after the Launching Meeting and the results will be reported at the COP 5 in 2001.

127. TPN2 will also maintain close linkages with other UNCCD Asian regional thematic programme networks to enhance overall coherence of activities undertaken within the framework of the Regional Action Programme in Asia. Benchmarks and indicators, which will be developed and used in agroforestry and soil conservation activities, will be of great use for the TPN1 that deals with desertification monitoring and assessment. TPN3 dealing with range land management and sand dune fixation, will be another regional network with which TPN2 can generate a great deal of synergy. TPN2 should also take into account ongoing policies, programmes and project implementation in conjunction with other global environment and sustainable development agenda items such as the Convention on Biological Diversity and the Framework Convention on Climate Change.

128. The participants emphasized that sufficient resources must be tapped in order to support a long term and effective implementation of the various activities and programme areas of the TPN2. The international donor community, in collaboration with the Global Mechanism, was urged to play a committed role in providing financial support. In addition, the participants agreed that it is essential for the TPN2 Nodal Institute, national coordinating institutes and other members to have access to various technological options necessary for agroforestry and soil conservation. The United Nations Environment Programme (UNEP), the Food and Agriculture Organization of the United Nations (FAO), the World Meteorological Organization (WMO), the International Center For Agroforestry Research (ICRAF), ICRISAT, ICARDA and other subregional organizations was encouraged to become active partners of TPN2.

129. The logistical and operational arrangements made available for the TPN2 network demonstrated clearly the commitment of the host country. A major achievement of the launching meeting was a consensus framework that delineates the operations of the network. The good momentum for cost effective regional cooperation so far achieved needs to be further strengthened through specific start-up activities for which partnership agreements are sought.

3. Launching of the Thematic Programme Network on Rangeland Management in Arid Areas including Fixation of Sand Dunes

130. The secretariat has initiated jointly with the host country preparations for the launching of a Thematic Programme Network on Rangeland Management in Arid Areas including Fixation of Sand Dunes (TPN3) planned for the last quarter of 2000. An initiative that may have significant bearing on TPN3 and the regional effort to combat desertification was the Regional Symposium on Sustainable Development of Desert Communities held at Yazd, Iran (Islamic Republic of), from 16 to 18 May 2000, sponsored by the host country with UNDP assistance. The Symposium was convened with the intention of bringing to the fore, at regional level, local efforts for sustainable development of desert communities. In the conclusions of the Symposium, the following aspects were highlighted: (a) understanding and using traditional practices and knowledge which can be enhanced with modern day science and technology such as in the areas of agriculture and water management, soil biodiversity, renewable energy, and architecture; (b) using approaches and technologies that account for the

individual features of the dryland environment; (c) the urgent need for international cooperation to help document traditional knowledge and its wider promotion and dissemination; (d) emphasizing that the people-centred approach is the cornerstone to sustainable dryland management. It was also noted that, as part of being comprehensive, holistic and integrated in approaching sustainable development, the use of modern technology and the setting up of clear benchmark indicators on the process and impact of desertification are important elements for long-term regional ecological monitoring; and knowledge networking including wider access to information technology for enhanced international and regional cooperation should be emphasized.

131. Bearing in mind that TPN3 will be hosted by Iran (Islamic Republic of), the participants also welcomed the news of the establishment of an international centre for resources conservation and sustainable development of drylands, including high mountain areas in Yazd. It was understood that the centre would play a key supportive role for TPN3.

D. Progress on the operations of the Asia Regional Coordination Unit

132. The need for the establishment of a regional coordination unit (RCU) was recognized and expressed during the New Delhi meeting in 1996. It was reiterated during the Beijing Ministerial Conference, the International Experts Meeting in Bangkok in 1998 and at COP 3. In response, the Asia-RCU was established with ESCAP at Bangkok, as a joint effort between the secretariats of UNCCD, ESCAP and UNEP in September 1999. A Memorandum of Understanding was signed between the UNCCD secretariat and ESCAP regarding the secondment of the coordinator. Financial support was provided by UNEP, to cover the salary of the coordinator for five months and a limited amount for the unit's operating cost. The RCU was operational in September 1999 and since then it has been operating with limited resources to carry out the activities assigned to it by the country Parties.

133. The following reasons provide the justification for the long-term existence of the RCU and its continued support. First, taking into account the size and diversity of the region, its large population and the number of Asian countries which are members of the UNCCD, the RCU is the most pragmatic arrangement for the secretariat in providing its mandated service to the UNCCD country Parties. Secondly, with two TPNs already launched (i.e. TPN1 and TPN2) and the launching of TPN3 (range management and sand dune stabilization) underway, there is a compelling need for coordination among these networks at the regional level to which the RCU can aptly respond. Thirdly, according to the Convention, ownership of regional initiatives pursued under the respective regional implementation annexes, lies within the region itself. The RCU being part of the region could facilitate the decision-making process in the most cost effective way in close collaboration with all relevant international organizations active in the area of natural resource management.

134. Despite difficulties faced by the RCU it has been able to fulfil its duty consistent with its terms of reference. The following accounts for the contribution of the Asian RCU:

(a) Participation in national awareness seminars on the UNCCD in the Lao People's Democratic Republic (September 1999), Indonesia (September 1999) and Sri Lanka (October 1999);

(b) Collaboration with designated UNCCD national focal points towards the timely preparation of national reports in Bangladesh (January 2000), Indonesia (January 2000), Cambodia (March 2000), Iran (Islamic Republic of) (February 2000), Malaysia (March 2000), Myanmar (April 2000) and Viet Nam (March 2000);

(c) Work with concerned government agencies in promoting and monitoring through national seminars and meetings in Brunei Darussalam (February 2000) and Thailand;

(d) The RCU, apart from UNCCD, also represented both ESCAP and the UNEP/ROAP in the regional meetings on desertification and land degradation reflecting a coordinated effort in UNCCD activities in the region. More specifically these activities include: launching the meeting on the second Thematic Programme Network (TPN2) on Agroforestry and Soil conservation, March 2000, New Delhi; participating in two meetings of the Regional Interagency Committee for Asia and the Pacific (RICAP), in particular the Subcommittee on the Environment; the Regional Review Meeting in Preparation for the Ministerial Conference on Environment and Development in Asia and the Pacific, 8-10 May 2000, Bangkok; the Fourth Ministerial Conference on Environment and Development in Asia and the Pacific, September 2000, Kitakyushu; and assisted in the organization of the regional meeting of UNCCD Asian focal points.

135. An important aspect of the RCUs work will be to streamline the UNCCD process particularly on the relevant policy frameworks being developed in the region and to support synergy in the implementation of the three Rio Conventions.

136. In summary, the Asia region has gradually established cost-effective mechanisms to enhance intergovernmental cooperation, scientific exchange and joint ventures. In the understanding of the Asian Parties, these steps would benefit from the support derived from the RCU and would facilitate the development of priority programmes in partnership with interested developed country Parties.

Annex I

EMERGING FEATURES IN THE SUBREGIONS

A. Emerging features within the West Asian subregion

137. Countries of the West Asian subregion have various degrees of economic potential but all are severely affected by desertification. Water scarcity is the key issue. Conditions for the availability of water for domestic and agricultural utilization has been described as threatening both in terms of the quality and quantity of water. Information provided by countries of the Persian Gulf and recent studies on this topic indicate that water consumption in countries of the subregion exceeds the limits of renewable water resources, which gradually lead to an alarming depletion of groundwater aquifers. With one of the highest overall populations, growth averaged 3.3 per cent in 1995 for the subregion, and an urban population that has doubled in recent years to 54 per cent of total population, the challenges for fragile dryland ecosystems to accommodate such strains are considerable. Improved water management and appropriate agricultural management techniques are critical in this Asian subregion, where food security and poverty alleviation are key factors for stable and sustainable economic development. Hence the abatement of land degradation caused by natural climatic factors and human interference should safeguard land availability.

138. Due to the severity of desertification experienced in the subregion, all countries had undertaken measures to alleviate the problem prior to the entry into force of the Convention in 1994. It was amply expressed in the reports that environmental strategies and programmes related to desertification are integrated into overall development strategies of Governments at a fairly early stage. Perhaps because countries of this Asian subregion are so used to dealing with an arid environment, it might have been difficult at first to identify additional efforts that could have been undertaken under the UNCCD. Due to these circumstance the preparation/review of National Action Programmes under the UNCCD was generally delayed in West Asia. This situation was compounded by still another aspect. Given the fact that some countries faced and still face an acute lack of financial resources, the implementation of a comprehensive NAP structure had to be postponed. However, an indication of the impact of the Convention on these countries is recorded in the stronger representation of desertification control in the recent national development plans of almost all countries.

139. Even though no country of the West Asian subregion has officially adopted a National Action Programme (NAP), work leading to the establishment of NAPs has been intensified in the period under review. It is to be expected that the grant to UNDP/UNSO provided by the Finish Government for a selected number of countries in the subregion will help to facilitate that process even further. All countries have established the institutional infrastructure necessary for implementing the Convention i.e. the nomination of a National Focal Point and a National Coordination Body. Some countries have formed technical subcommittees that facilitate work at a technical level. However, what seems to be lacking in the process is appropriate coordination at the national, subregional and regional levels. Some reports duly reflected efforts undertaken in other areas of environmental protection, namely, projects that relate to the conservation of biodiversity. Awareness raising among decision makers as to the compatibilities of the objectives of the two Conventions might help to establish a more efficient management of funds and human resources.

140. A specific feature of the West Asian subregion is that it comprises countries with very diverse economic development patterns and income levels. Due to the oil industry and services related to it, Persian Gulf countries can

mobilize the financial resources to fight against desertification and invest in related advanced technology. The main thrust of scientific work was focused on the utilization of waste water for domestic and agricultural utilization. Consequently, a solid base of experts in those fields is now established that could be further integrated into the overall framework of the implementation of the Convention on a global scale. In other western Asian countries where no oil resources are available and agricultural production still plays an important role for national markets, external financial assistance is needed to match the commitment of the countries with appropriate funding. In all countries a rich indigenous knowledge system with regard to dryland management should be preserved in the light of rapid urbanization and social changes.

141. Further impetus for the establishment and subsequent implementation of NAPS can be expected from the Subregional Action Programme (SRAP) that was officially endorsed in February 2000. Since the major activity areas of the SRAP reflect the needs of countries to further improve water management and issues relating to vegetative cover, work implemented on the level of the SRAP is most likely to fill gaps that will be identified at a national level. Subregional organizations are willing to take up active responsibilities in the UNCCD implementation. Specialized agencies, such as the International Center for Agricultural Research in the Dry Areas (ICARDA), Arab Center for the Studies of Arid Zones and Dry Lands (ACSAD), and the Arab Organization for Agricultural Development (AOAD) are willing to play an active supporting role in the process. The potential of organizations and/or institutions involved in combating desertification should be gradually tapped to make best use of expertise already existing within the subregion.

142. Most countries express an urgent need for comprehensive information management on a national scale but also at the subregional level. Most countries characterized their needs in terms of data management, the lack of centralized databases dealing with desertification issues, monitoring and assessment, capacity-building for focal points and NGOs, and many countries emphasized the need for financial assistance to address those shortcomings. The information base on the current magnitude of and trends in desertification in the subregion needs improvement. Furthermore, there is no comprehensive assessment of the degradation of irrigated land, rain-fed cropland or rangeland in the region. Given the economic potential in some countries of the subregion and the threatening extent to which desertification is impeding sustainable growth, exchange of expertise within the subregion and an increase in coordination should be encouraged in the context of the programmes now being developed under the UNCCD. Many countries see also the Convention as a framework for international solidarity to bring about more scientific, technical and financial cooperation.

B. Emerging features within the Central Asian subregion

143. All reporting Parties of the subregion are affected by desertification and land degradation with varying degrees of severity. Economic consequences of desertification and overall losses as a result of land degradation are enormous and have a tendency to grow. At the same time, the degree of the negative impact of desertification on the economy of individual countries also differs considerably, depending mainly on their economic potential, level of industrialization, role of agriculture and endowment with natural resources.

144. One of the specific features of the Central Asian subregion is that it comprises countries with very similar patterns of historical, economic and political development, both in the pre- and post-independence periods. Since the early 1990s, all countries of the subregion have been undergoing the process of radical socio-economic reforms, including democratization, decentralization, privatization, transparency and improved access to information for ordinary citizens, land reforms etc, which have direct or indirect links with environmental protection and the fight against desertification.

145. The transformation period is accompanied in most countries by serious economic difficulties, such as a prolonged fall in industrial and agricultural production, inflation, budget deficits and decline in living standards. In some cases economic problems that are typical for countries in transition are exacerbated by political disturbances.

146. The transition shock did not prevent the Central Asian countries from becoming Parties to the Convention. Moreover, given the present state of the economy, particularly as compared with the pre-independence period, the results of the initial stage of the implementation of the Convention appear to be impressive. Countries' commitment to the Convention and their efforts aimed at unfolding the UNCCD process are especially visible in the field of institutional reforms and arrangements as well as organizing awareness campaigns and facilitating the participatory process in support of the preparation of national action programmes.

147. In all countries of the subregion, a national coordinating body has been established shortly after the ratification of the Convention. Under the auspices of the NCB a national multisectoral steering committee has been set up with participation of high-ranking officials from key government ministries and committees, district administration, academic institutions, higher education and non-governmental organizations. A national forum on combating desertification has been held in three countries and one country is planning to hold a national forum before COP 4.

148. Transboundary projects, such as those on the Aral and Caspian Seas, play an important role in the subregion, *inter alia*, with regard to the fight against desertification and land degradation. In general, the potential for the activization of subregional cooperation in combating desertification appears to be quite substantial bearing in mind common borders, traditional links, common patterns in development and complementarity in respect of endowment with natural resources. The establishment of a subregional network of mutually compatible national databases on the environment, including deserts, is considered by some Parties as one of the short-term priorities.

149. Both technical and financial assistance provided by international organizations, as well as by bilateral donors, is highly appreciated by the countries of the subregion as a crucial factor in launching the UNCCD process under difficult socio-economic conditions. At the same time it is generally felt that the next stages of the implementation of the Convention will require a substantial increase in technical and financial support by international multilateral and bilateral donors. In this subregion it appears that investment in mobilizing the youth to combat desertification and land degradation would have the most widespread and lasting impact.

Annex II

TABLE OF CONTENTS OF THE COMPILATION OF SUMMARIES AS PRESENTED IN THE NATIONAL REPORTS

Countries	Document reference number	Page
1. Bahrain	ICCD/COP(4)/3/Add.1 (A)	3
2. Bangladesh	"	4
3. Cambodia	"	7
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5. Fiji	"	16
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9. Jordan	"	31
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19. Pakistan	"	19
20. Palau	"	22
21. Philippines	"	25
22. Republic of Korea	"	29
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26. Sri Lanka	ICCD/COP(4)/3/Add.1 (C)	3
27. Syrian Arab Republic	"	8
28. Tajikistan	"	10
29. Turkmenistan	"	16
30. Tuvalu	"	23
31. United Arab Emirates	"	23
32. Uzbekistan	"	28
33. Viet Nam	"	32
34. Yemen	"	35

Table. The status of the NAP process in Asian Parties as given in the national reports

Countries	Status of NAP preparation		NAP prepared		NCB/NFP		Financial allocation	Needs expressed[1]
	To be prepared	Being prepared	Prior to CCD	After CCD	NCB established	NFP designated		
Bahrain			√ (1992)		Being established	√	Government funds	√
Bangladesh	√				To be established	√	Government funds; external assistance	√
Cambodia	?				?	√	Collaboration with international agencies	√
China				√	√	√	Central, province and local governments financing; external assistance	√
Fiji[1]	√				-	-	Indirect funding allocation	√
India		√			-	-	National/ State budgets; External assistance	√
Indonesia	√				To be established	√	?	√
Iran (Islamic Republic of)		√			√	√	National budget; investments from private sector/ local communities	√
Jordan			√ (1987)	√	To be established	√	Government funds; external assistance	√
Kazakhstan				√ (1997)	?	√	National/local budgets; Funds from nature users; external assistance	√
Kuwait	√				√	√	Government annual budget	√
Kyrgyzstan		√			√	√	National budget; external assistance	√
Laos	√				?	√		√

Countries	Status of NAP preparation		NAP prepared		NCB/NFP		Financial allocation	Needs expressed[1]
	To be prepared	Being prepared	Prior to CCD	After CCD	NCB established	NFP designated		
Lebanon	√				√	√	Limited funds; external assistance	√
Mongolia				√ (1996)	√	√	State and local budgets; revenue from natural resources use fees; external assistance	√
Myanmar			√ (1991)		√	√	National efforts; collaboration with multilateral, bilateral and UN agencies	√
Nepal	√				√	√	National budgets; external assistance	√
Oman			√		√	√	Mostly from government	√
Pakistan		√			√	√	National and provincial funds; funds raised by community organizations; external assistance	√
Palau[3]	√				To be established	√	A budget has yet to be developed	√
Qatar	√				To be established	√	Annual national budget	√
Republic of Korea	√	√	√	√	√	√	Government funds	√
Saudi Arabia		√			√	√	Government budgets; no external assistance so far	√
Singapore[4]			Greening Programme (since 1960s)				Government funds	
Sri Lanka	√				√	√	Collaboration with multilateral, bilateral and UN agencies	√
Syrian Arab Republic		√		√ (1995)	√	√	National funding; external assistance	√

Countries	Status of NAP preparation		NAP prepared		NCB/NFP		Financial allocation	Needs expressed[1]
	To be prepared	Being prepared	Prior to CCD	After CCD	NCB established	NFP designated		
Tajikistan		✓				✓	National budget; external assistance	✓
Turkmenistan				✓		✓	Some funds allocation is envisaged; external assistance	✓
United Arab Emirates				✓ (1995)	To be established	✓	?	✓
Uzbekistan				✓ (1996)	✓		National budget; external assistance	✓
Viet Nam	✓				✓		Government annual financial plan; funds from NGOs and domestic enterprises; external assistance	✓
Yemen			✓ (1990)		✓		Government funds; external assistance	✓

Notes

A question mark (?) in any cell implies that no specific information is provided. Whether or not a NAP has been prepared, all reporting Parties have existing environmental or sectoral strategies, policies, legal instruments and programmes to deal with desertification and land degradation.

1 Financial, technical, technological and/or capacity-building needs.

2 Based on the long history in combating desertification especially since the 1950s.

3 New NAP.

4 Not directly affected by desertification.